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A Monthly Record of Modern Therapeutics,

WITH PRACTICAL SUGGESTIONS,

RELATING TO THE CLINICAL APPLICATION OF DRUGS.

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The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, JULY, 1901. No. 1.

Leading Articles.

*OBSTRUCTION OF BOWELS.**

By H. C. DALTON, M.D., St. Louis.

To the physician of experience it goes without saying that obstruction of the bowels is one of the gravest conditions with which we have to deal, one which, in its earliest stage, tries our diagnostic ability to the fullest extent. Any tyro in surgery knows that he has to deal with an obstruction when the patient has pain, fecal vomiting, facies abdominalis, in fact, all the classical symptoms; but how difficult it is to arrive at a proper conclusion when pain alone exists in the case. This is almost always the very first symptom, and often the only one for a number of hours, precious hours on which the life of the patient hangs.

Obstruction may be due to mechanical causes, or diseased conditions in or near the bowel. In the former class are found fecal impaction, gall stones, enteroliths, foreign bodies, and also those curiosities in abdominal surgery, balls of hair, and masses of intestinal worms. Diseased conditions of many kinds may cause obstruction. Chief among them are new growths either in the bowel itself, in the mesentery, omentum, or other structures. Intussusception is, perhaps, the most frequent cause of obstruction, occurring in a large per cent. of all cases. It is also due to bands, adhesions, volvulus, hernia with rents or openings in mesentery or omentum, diaphragmatic hernia, etc., etc.

The above does not by any means exhaust the list of causes, but is enough to indicate some of the difficulties confronting the surgeon in the matter of diagnosis. If possible, the diagnosis of acute intestinal obstruction should be made at the earliest moment, but this is far easier said than done. The usually sudden onset of severe pain, the absence of bowel movement, the distention (which is quite marked when the obstruction is at a distance from the stomach), the vomiting, and occasional shock, etc., will at once point out, even to a man of little experience, the fact of obstruction.

In this paper I can only discuss a few of the more usual forms of obstruction with brief reference to diagnosis and treatment. As intussusception occurs in almost one-half of the cases it behooves us to always bear this condition in mind. It is extremely difficult to discriminate between it and other forms of obstruction. The task is easier if a tumor be found after a sudden development of pain, particularly if it be in the course of the large intestine. It is well to remember that a tumor occurs only in 45 per cent. of all cases of intussusception. It must not be forgotten that a patient with intussusception may continue to have bowel movement. In fact, it is quite common in the early stage of the ileo-caecal or colic variety for the bowels to be loose. The diagnosis may be made still easier if the tumor can be felt in the rectum or protrudes from the same.

Gibson, of New York, in 646 cases of acute obstruction of the bowels found 187, or about 29 per cent. due to intussusception; bands including twists, due to adhesions, etc., 186 cases; volvulus, 121;

* Read before the Missouri State Medical Association, May 20-23, 1901.—Reprinted from the St. Louis *Medical Review*.

Meckel's diverticulum, 42; gall stones, 40; opening in mesentery, omentum, etc., 34; foreign bodies, 16; and miscellaneous, 20. These cases were carefully studied, and his results so far as they relate to the relative frequency of various causes agree closely with those of other writers.

Speaking broadly, intussusception occurs in early life; volvulus in middle life, gall stones in old age, while bands, adhesions, etc., may produce the condition at any age, though naturally are usually expected rather late in life. They are generally the product of previous inflammatory process or surgical procedures. In acute intussusception the obstruction is produced primarily by the mechanical narrowing which the lumen of the intestine suffers when crowded into the segment below. This is increased by the swelling of the intussusceptum consequent upon the interference with the circulation, and may be rendered complete by the curving or bending caused by the very considerable dragging upon the mesentery.

While upon the subject of intussusception it may be of interest to report a case which occurred some four or five years since in the practice of Dr. H. C. Fairbrother, of East St. Louis. It was that of a boy 12 years of age who was seized with severe pain and tenesmus at two o'clock in the afternoon. The doctor recognized the condition and telephoned to me at midnight, 10 hours after the inception of the attack, to come prepared to do a laparotomy. The boy was in a fairly good condition, temperature about 101, pulse in the neighborhood of 110. He was still suffering considerable pain. Upon opening the abdomen we discovered that the ileo-caecal variety existed. This is, as you know, the most frequent form of intussusception, occurring in 44 per cent. of all cases. The reduction of 3 or 4 feet of ileum was readily made, as a sufficient time had not passed to permit firm adhesion between the intussusceptions and the intussusceptum. The ease with which the reduction was accomplished enabled us to complete the operation in a very short time. The patient, however, was put to bed in profound shock, the extremities were cold and clammy, and the pulse scarcely perceptible. In spite of this fact the patient rallied promptly and made a rapid recovery.

In intussusception the pain, vomiting, and tenesmus are almost constant symptoms; but pain is at best an uncertain guide, vomiting may be long delayed or absent when the disease is in the large intestine, and the straining may be slight or absent when the obstruction is high up.

Bands or adhesions furnish almost as many instances of acute obstruction as intussusception. They are usually the result of a previous inflammation or abdominal section. Any localized peritonitis may give rise to it. After recovery the constant peristaltic movement of the bowels, the weight of abdominal viscera, and the movements of the abdominal walls all tend to stretch such adhesions and convert broad thin bands into long, narrow ones.

For purposes of diagnosis and treatment it makes no difference whether the offending condition be an inflamed band, or hole in the mesentery or omentum, or a persistent vitelline duct. In either case it is probable that one of the more movable loops of small intestine is caught and imprisoned. The distension of the confined loop rapidly increases and cuts off the blood supply. The distension of intestine above the point of construction helps to prevent spontaneous reduction and hastens the rapid approach of gangrene or perforation and all the evils of a rapidly progressing sepsis in the peritoneal cavity.

Acute obstruction of the bowels by fecal accumuluation must be very rare. I have never seen a case. I have seen the pelvis so filled with hardened scybala as to require its removal by fingers or scoop, but even in these cases I have not seen any

symptoms of acute obstruction, such as pain, distension, etc.

In volvulus or twisting of the bowels the diagnosis is rendered easier than in most cases of obstruction by the fact that shortly after pain is noted a rapid ballooning, in fact, enormous distension of the bowels sets up, and it is also observed that the pain is not so severe as in strangulation by bands or intussusception. Two-thirds of all cases of volvulus occur about the sigmoid flexure. Vomiting is absent much oftener in volvulus than in strangulation by bands. The pulse is weak and rapid and the temperature usually below normal; in fact, it may remain so until death. On account of distension the respiration soon becomes distressing and is much increased in frequency. This accounts for the dyspnea and sense of suffocation

In the Annals of Surgery for August, 1887, occurs a most interesting article by Dr. Frederick Kammerer, of New York, on strangulation of the intestine by Meckel's diverticulum. He reports three cases in the literature of the subject. He states that in the 66 cases, the end of the diverticulum was attached to the mesentery in 33 cases, 13 to the umbilicus, 8 to the abdominal walls, and 12 to the intestinal tract.

The limits of this paper prevent me from referring to all the causes of obstruction. I might dilate upon obstruction due to twisting of the omentum, of the entire mesentery upon itself, internal herniae of all kinds, etc., etc.

I will, however, give the history of a case of diaphragmatic hernia upon which I operated in 1891 while in charge of the St. Louis City Hospital. The patient had been treated by me in the same institution for stab wound of the thorax about a year previous to the operation. The knife entered the seventh costal interspace in the left mammary line. At the time no evidence of injury to the diaphragm was noted.

At his admission in 1891 he complained of great pain in the left hypochondriac region, respiration was difficult in the recumbent posture, so much so that his shoulders had to be considerably elevated. The drum-like percussion note over the left chest and the displacement of the heart to the right, taken in connection with a knowledge of the previous stab wound injury, led to the diagnosis of diaphragmatic hernia.

The patient had been suffering with severe pain and difficult respiration for about 36 hours prior to his admission to the hospital. After the abdomen was opened the condition was readily made out. Traction alone was not sufficient to return the mass to the abdominal cavity. A slight incision of the ring enabled me to perform reduction without further difficulty. The opening of the diaphragm was closed by several chromicised catgut sutures. The patient, however, did not rally, and died in a few hours after the operation. The hernial mass consisted of almost the entire stomach and splenic flexure of the colon.

A better and safer procedure would have been a resection of the rib and a reduction of the mass from above. Had I adopted this plan I believe my patient would have recovered. As the patient made an apparently perfect recovery from the knife wound I take it that the hernia did not come on until shortly before his admission to the hospital for operation. There must have been a gradual giving away of the diaphragm at the site of the knife wound. This case emphasizes the point which I have since insisted upon, and that is, that all knife wounds of the abdomen and lower thoracic region should be followed to the bottom with the naked eye. In this case it would have been the better procedure at the time of the knife wound to have resected the rib and sewed up the diaphragm from above.

In the treatment of obstruction of the bowels there can be no question as to the urgent necessity of immediate surgical interference. I cannot too strongly con-

demn the use of opium or purgatives in cases where we have the least suspicion of obstruction. The use of opium simply obscures the symptoms by deadening the pain so that peritonitis becomes so far advanced as to render operative interference almost useless. Purgatives, of course, by adding to the bowel persistalsis, aggravate the condition and not only make the obstruction more acute but cause vomiting, and thus increase the shock; but how many of us have treated cases of obstruction without opium or purgatives in the early stages before making a diagnosis? I confess to having sinned in this way a number of times, and I regret to say that I fear I have lost patients by pursuing this course.

I believe it to be our duty to withhold all opiates and purgatives when we are called to a patient suffering with abdominal pain. It is extremely difficult, however, and perhaps heartless to stand by and allow our patient to suffer excruciating pain while awaiting developments. I am persuaded that we would do far better to use simple hypnotics and soothing local applications until we are convinced that we do not have to deal with a simple colic. I would make an exception to this rule when we have good reason to believe that our patient is suffering from a hepatic or renal colic. The location of the pain and the previous history of such attacks in these conditions would be a good guide and enable us to draw a fairly safe conclusion.

If the use of hypnotics, warm applications, and high rectal injections do not relieve the condition after a few hours' trial I am persuaded the course would be to perform abdominal section. I shall not attempt to discuss the various procedures for the relief of the obstructed condition after opening the abdomen. These are generally well known.

Application for Burns, etc.:—

Adeps lanæ hydrosus.....	1 part.
Hydrogenni peroxidi.....	2 parts.
Ol. Rosa.....	1 gtt.

M. et ft. ungt.

This is also a good toilet cream.

*SUGGESTIONS FOR A STUDY OF FATS IN THEIR RELATION TO PHYSIOLOGICAL CHEMISTRY, THERAPEUTICS AND TOXICOLOGY.**

By John Reid, M.A., M.D., C.M., Redhill, Surry, England.

Fats have been so familiarly spoken of by the profession and the laity, that it seems to be a trivial subject to write on. The very familiarity has bred contempt.

It is well known that many alkaloids and metals are soluble in fat and oil, but it is not so well known how this subject affects the scientific work of the profession. If an alkaloid, arsenic, or various other principles insoluble in water, or with difficulty soluble in water, are passed by the urine, they may be separated from that fluid by acidulating it and shaking up with oleic acid. The oleic acid being skimmed off, will part with the dissolved body, when it is dissolved in benzene—provided the body is not soluble in benzene. I have tried several bodies—arsenic, cocaine, other alkaloids, and coal-tar amines. The peculiarity is the yielding of the bodies to oil, or fatty acid, and this peculiarity may account for the frequency with which, in medico-legal cases, arsenic and other poisons are not found in the liver. There is a neglect of supernatant fat, which probably contains all, or at least the greater part, of the poison. There are the cases of arsenic in fat puddings with no poisonous effects—the fats are not absorbed in sufficient quantities and the arsenic passes off by the fæces. The vast accumulations of fats in various diseases, and locally, may be due to similar principles, insoluble in water, detaining the fats. There is also the fatty pellicle in urine in canthardidin poisoning, and there are many cases of poisoning in which the fat is removed from the system. In what cases is it stored and in what removed—two opposite conditions—ought to be scientifically examined. There

* From the Y. Y. *Med. Jour.*, Aug. 10, 1901.

may be a good clue to the action of drugs on the nervous system, and on that part of the nervous system where fat is ever present. The mode of action may thus be studied. The elective affinity of certain drugs can be explained on the same principle.

Iodide of potassium has been used as an eliminator of poisons, and cod-liver oil has been used merely to add fat to an exhausted system. It may well be asked whether the oil is only a fattener, or whether it also serves to eliminate poisonous principles. The use of fat as a vehicle, as a menstruum, in the economy has been either neglected, and its elective affinity has been either unknown or ignored. These two functions appear to me to be highly important to the economy, and to open up a subject well deserving careful study. The use of oleaginous matters in some cases might replace that of iodide of potassium. To sum up: (1) In urinary analysis—oleic acid is useful and speedy in dissolving various principles; (2) in analyzing organs—they may be partly analyzed by acidulating and extracting with supernatant oleic acid, or the fat should be skimmed off and treated with benzene, so as to make complete analysis; (3) fat may be used to eliminate poisons from the body; (4) the elective affinity of drugs may be partly due to their fat affinity; (5) the whole subject of fat in its relation to economy is worthy of careful study.

A Lotion for Erysipelas.—The following formula is credited by the *Journal de médecine de Paris* for May 19, to J. Hays:

℞ Carbolic acid,
Tinct. of iodine,
Alcohol, } of each.. 30 minims.
Oil of turpentine..... 60 "
Glycerin..... 90 "

M. For external application.

Every two hours the erysipelatous part may be painted with this liquid, as well as a small zone of the surrounding healthy tissues, and the whole covered with aseptic gauze.—N. Y. *Medical Journal.*

*DOSIMETRIC MEDICATION IN PEDIATRIC PRACTICE.**

By M. Borts, M.D., Cleveland.

As I look back over the earlier years of my practice I readily recall the fact that it was my little patients that caused me the greatest anxiety. First, there was more difficulty in diagnosing their ailments. This feature will always be the difficult one in pediatric practice. Second, it is more difficult to prescribe for them, as some medicines are unpalatable. This feature we tried to overcome by selecting menstruum to conceal the disagreeable taste. Sometimes we were disappointed in the results and we found on making our next visit that the mother or nurse had great difficulty in getting our little patient to take his medicine. When we came to investigate and taste it ourselves we found that the resulting taste of the various ingredients was quite different from what we had supposed it would be. The result was very disappointing. The child had not received the amount of medicine we thought it needed because the mother or nurse was unable to compel it to take the nauseating dose. Valuable time had been lost. The disease had been advancing. The child was apparently worse and we had failed in our efforts to relieve it. The mother was alarmed, she was discouraged, and perhaps she was disgusted with the doctor and his medicine. If she had any faith in homeopathy at all she was very likely to seriously consider the advisability of changing doctors. And I know that during the earlier years of my practice I lost the patronage of quite a number of families for no other reason than that my prescriptions were unpalatable. Palatability and the absence of any unpleasant after effects has always been the strongest points in favor of homeopathy. But this is not all, I found, as every one of you have also found, namely—that the anti-

* Read before the Ohio State Pediatric Society at Cincinnati, May 8, 1901.—From the *Cleveland Medical Gazette.*

cipated results did not always follow even when the medicine was faithfully given. Tinctures, fluid extracts, etc., are not always of uniform strength and disappointment often follows their use because they are in a measure inert or possibly they are too strong or too concentrated and symptoms more or less poisonous have followed their use.

I have attempted in this imperfect way to point out a few of the reasons that led me to investigate and later to adopt in a large measure the use of alkaloids prepared and administered in the dosimetric form in my practice, especially among children. But the question of palatability is not the only point in favor of alkaloidal medications in pediatrics. When I speak of alkaloidal medication I have reference especially to the dosimetric method of medication. In dosimetry we have not only the active principles of the various drugs each prepared separately, but we have these in minimum doses, in small granules and pellets, attractive in appearance, palatable and convenient to administer and, last but not least, most reliable in therapeutic results. Allow me just here to say that there seems to be a prejudice in the minds of many good, honest practitioners against dosimetry, and in my judgment it is due to an erroneous idea that those who favor alkaloidal or dosimetric medication aim to establish a distinct system of practice. This is a great mistake. It is not a new system, it is simply a new method, an up-to-date method of administering remedies the physiologic and therapeutic effects of which are all familiar to us. Instead of the cruder forms of the drugs we use the active principles. Instead of a full dose every four hours, we give a minimum dose at short intervals. Instead of a teaspoonful of medicine disagreeable to sight and taste, we have a little granule with little or no taste and most convenient to administer to child or adult. It should require no argument to convince an intelligent man that a granule of strychnine is easier to administer to a child than a dose of tincture of nux vomica, or that a granule of digitaline is more agreeable to the little patient than a dose of tincture of digitalis. The same is true in regard to aconite, veratrum, ipecac and many of our most valuable drugs.

But perhaps you say that it is not necessary to use the dosimetric granules in order to administer the active principles of drugs. That is true, but can any one suggest a more convenient and palatable method of preparing and administering the alkaloids, glucosides, etc., than in the granule form?

But this not all. In the practice of alkaloidal therapy certain customs or basal principles have been developed, which, though not confined to this therapeutic method alone, have become in a manner habitual to its followers; whether or not these principles are well founded you may easily determine. I refer first to the giving of small doses frequently repeated until the desired result is produced. Say every 15 to 30 minutes according to the severity of the attack until the physiologic effects of the drug begin to be manifest. Such doses should then be given at longer intervals as is necessary to keep up a sustained effect. By adhering strictly to this method it is simply impossible to overdose the patient. In this way the alkaloids and other active principles and the most powerful mineral drugs may be used with perfect safety. Here we have the first illustration of the value of alkaloids in promoting accuracy of medication. These agents are clean cut and well defined in their effects and totally devoid of the uncertainty which hangs over the cruder preparations.

If this short and imperfect paper should be the means of leading any physician to investigate the advantages of dosimetry in pediatric practice it will have accomplished the purpose of its author.

Pure Australian Eucalyptus Globulus Oil, in 5 minim capsules, is used successfully in malaria.

*A NEW METHOD OF MAKING TANNIN AVAILABLE AS AN INTESTINAL ASTRINGENT.**

By ALBERT C. BARNES, A.M., M.D., and H. HILLE, Ph.D., of Philadelphia.

The great disadvantage attendant upon these remedies employed for astringent action upon the intestinal canal is that they are not only astringent to the stomach, but also undergo certain chemical changes in the gastric and intestinal juices whereby they are deprived of their astringent properties.

Pharmacologists well know that an agent designed for local action upon the intestines must be unaffected by the gastric juice, must be free from action upon the gastric mucous membrane, pass into the intestines chemically unchanged and must not be absorbed. It can be safely stated that not a single one of the intestinal astringents employed to-day possesses these desiderata.

The salts of the metals—silver, lead, copper—have so many objections that their application is exceedingly limited, and, in fact, meet few, if any, of the indications. Tannic acid is acknowledged to be the ideal astringent for mucous membranes if it can be brought chemically unchanged in contact with them. This astringent action is due to the fact that tannin causes structural changes in the mucous membrane, whereby the albuminoid bodies are precipitated. There ensues, consequently, shrinking of the parts, constriction of the capillaries, and diminution of secretions. Heinz observed also that tannin causes a cessation of the movements of the leucocytes at the point of application and prevents their escape from the blood vessels, thus removing an important factor in the pathological condition of catarrhal inflammations. However, when tannic acid is administered internally, but a very small quantity reaches the intestines, because it is decomposed by the gastric juice into gallic and pyrogallic acids, which are non-astringent. Furthermore, the principle effects of the tannic acid consist of undesirable and deleterious actions upon the stomach, *i.e.*, it coagulates the entire superficial layers of the gastric mucous membrane, thus practically abolishing the functions of secretion and digestion, and leads to grave functional and organic disturbances of the stomach. Because of the chemical changes which it undergoes in the presence of the gastric juice, and because of its deleterious effects upon the stomach, the almost ideal astringent properties of tannic acid cannot be made available for the intestines.

Schmiedeberg, the highest authority on pharmacology, recommends that tannin-bearing plants (kino, catechu, krameria, etc.) be employed instead of tannic acid, because in these plants the tannin exists in combination with various gummy colloid materials, which, on account of their insolubility, prevent the rapid elimination of the tannin and thus, to a certain extent, diminish the local astringent action on the stomach. However, as is well known, even the tannin-bearing plants disturb the stomrch, and, moreover, form an uncertain method of medication, inasmuch as the tannin exists in them in unknown and varying quantities.

Gottlieb, of Heidelberg, found that by precipitating albumin with tannic acid and then heating the resulting tannin albuminate for five or six hours at a temperature of 110° C., this body could be made to a certain extent resistant to the action of gastric juice. Extensive reports, particularly from the European clinics, prove that this tannin albuminate is a decided improvement in the previous methods of administering tannic acid. However, as is conceded, this tannin albuminate does not possess the properties of an ideal astringent. It was supposed by Gottlieb that this body being heated to the high temperature above noted, would render the albuminate digestible with difficulty

* Reprint from the *Phila. Med. Journal*, July 20, 1901.

and consequently the tannin would be freed from its combination with the albumin when the compound reached the intestines. The following experiment shows that this is not the case: Two grammes of tannin albuminate were mixed with 100 cc. of water to which 0.2 grm. absolute hydrochloric acid and 9 2 grm. pepsin were added. This, as will be noted, corresponds exactly to the composition of the gastrie juice. Digestion was then allowed to proceed for six hours at 40° C.—the temperature of the human body. The mixture was then filtered, dried and weighed, when it was found that 1.19 grammes, corresponding to sixty per cent. of the tannin albuminate had been digested and dissolved. This experiment was repeated four times always with the same result. It is therefore evident that a tannin containing body which dissolves to the extent of sixty per cent. in an artificial juice under exactly the same conditions as prevail in the human system cannot be considered free from astringent action upon the stomach

Incidental to some pharmacological and chemical work upon the nucleo-proteid class of bodies the writers undertook to produce a tannin compound that would be even more resistant to digestion, consequently present more astringent tannic acid to the intestines, and what is even more desirable, but very gradually evolve free tannin from the compound when the body is acted upon by the alkaline intestinal juices. The object of the latter attribute is, inasmuch as in most cases of catarrh and ulceration of the intestines, the lesions are present also in the lower portions of the intestines, the astringent action of tannin upon these parts of the canal is very desirable. The writers found that by the synthesis of nucleinic acid and albumin there results an entirely new body which chemical analysis shows belongs to the nucleo-proteid class of bodies. Under certain chemical and physical conditions this body enters into combination with tannin and forms a yellowish-brown, tasteless powder containing fifty per cent. of tannic acid. This tannic nucleo-proteid is insoluble, does not precipitate albumin, pepsin or peptones. We instituted the same experiments as made with tannin albuminate and secured the following results: Two grammes of tannin nucleo-proteid, 100 cc. of water, 0.2 grms, absolute hydrochloric acid, temperature of 40° C. It yielded but 0.5 grms, in solution; that is seventy-five per cent. of the body retained its natural form. Even forty-eight hours' digestion under the same conditions failed to further digest the body; it is therefore evident that seventy-five per cent. of the tannin nucleo-proteid passes through the pylorus chemically unchanged and the body must be therefore practically free from astringent action upon the stomach. The following experiments show the behavior of the tannin nucleo-proteid toward the alkaline juices. Two grammes of tannin nucleo-proteid were digested 6 hours at 40° C. in an artificial pancreatic juice consisting of 0.1 grm. pancreatin and 0.33 grms. sodium carbonate. There went into solution 0.50 grammes (twenty-eight per cent.) of the body; 1.44 grammes remained unchanged. Further experiments showed that it required additional alkali to dissolve more of the tannin nucleo-proteid. These experiments demonstrate that this tannin nucleo-proteid *but very gradually evolves tannin from its combination.*

The advantage of this gradual elimination of tannin from tannin nucleo-proteid can be readily understood. As a remedy passes down through the intestines and meets fresh portions of alkaline juces, more and more tannin is gradually released. Thus is the astringent brought into contact with the entire intestinal canal, even to the lowermost portions of the colon, as is evidenced by the fact that small quantities of tannin nucleo-proteid and tannic acid may be detected in the feces.

Another advantage of this gradual elimination of tannic acid from tannin nucleo proteid is that the astringent action

of tannin is more complete when but small quantities come in contact with any one portion of the intestinal mucous membrane, while large quantities produce local irritation and defeat the objects of treatment. (Schmiedeberg).

In order to determine the effect of the tannin nucleo-proteid on animals it was tried on fifty calves which had been fed exclusively on milk and were suffering from profuse diarrhea. As every veterinarian knows this form of diarrhea is one of the most intractable. Four grammes of tannin nucleo-proteid were administered at intervals of from two to three hours. In most cases the diarrhea ceased at the end of forty-eight hours; at the end of four days the epidemic was completely controlled. Clinical trials on human beings in two Philadelphia hospitals and in one New York hospital, now being conducted, indicate that tannin nucleo-proteid will be a valuable adjunct in the treatment of various diseases of the intestines associated with diarrhea.

A Wider Range for the Therapeutic Employment of Santonin.—Until recently santonin has been regarded as one of our most reliable anthelmintics, but its use in other conditions has not been recommended. However, attention has been called of late to the value of santonin in the treatment of epilepsy and the fulgurant pains of locomotor ataxia. The physiological action of santonin in large dose is chiefly upon the nervous system. Consciousness is disturbed, a sort of intoxication seizes the patient, accompanied by great weakness, tremors, sweating, coldness of the surface, aud vomiting. There also follows a slowing of the pulse with enfeebled respiration. Mydriasis occurs with a frequent onset of convulsions. Between the convulsions there is sometimes paralysis of respiration which usually causes death. The most characteristic action of the drug is upon the vision. At first everything appears colored blue, and afterwards yellow or greenish-yellow. The blue appearance is very transitory, but the yellow vision (chromatopsia) lasts much longer. Following this, if very large doses have been taken, total blindness, sometimes lasting a week, occurs. It is said that this alteration of the vision is due to stimulation of, and later paralysis of, those fibers of the retina by which blue light is perceived. Dr. C. Negro, of Turin, observing particularly the action of santonin upon the retina reasoned that it should be capable of influencing general changes of nervous sensibility. This supposition was fully verified in a Patient with tabes, to whom Dr. Negro administered santonin to combat the painful crises. His results were most satisfactory, and since this time he has treated a number of similar cases always with favorable results.

He administers santonin in doses of 15 centigrammes a day, taken at intervals of three or four hours. These doses have generally been found sufficient to completely abolish the fulgurant pains. Lydston has used santonin in the treatment of a number of cases of epilepsy, and he believes that the action of the drug is much more favorable than the bromide-treatment. Lydston begins by administering 2 grains of santonin gradually increased, as tolerated, until as much as 15 grains, taken 3 or 4 times a day, is given. He has usually found this amount to be well borne. The advocacy of another remedy in addition to the host of those recommended in the conditions we have named, will no doubt be regarded by very many physicians as of doubtful value. But the results whih have been attained from the employment of santonin seem to justify an extended trial on the part of the profession so that its precise value may be accurately determined.—*Phila. Medical Journal*, April 27, 1901.

Summer Diarrhea of Children.—

R Tannalbin 3ij.
Spirit of cinnamon..... Miij.
Aromatic powder,
Sugar, of each..... gr. xv.
M. Make fifteen powders.
Sig: One every two or three hours.—*Medical Bulletin.*

THE AMERICAN THERAPIST.

A Monthly Record of Modern Therapeutics,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Editorial.

THAT THE "medical thought in Germany" is turning to therapeutics, may be a new movement academically, but it is a mistake to think that the practitioner in Germany has in the past neglected all available measures for relieving his patients. In society proceedings, in journal publications, in hospitals, colleges, clinics, etc., many of the leaders of the profession may have lost sight of therapeutics in the study of pathology. But the German physician has always been a good prescriber of drugs; he has been a shrewd observer of the effects of new remedies also, and he has, without question, helped along the progress in therapeutics as much as his brethren of any other country.

Skepticism and nihilism in therapeutics are no more rampant in Germany than elsewhere. On the contrary, the greatest drug enthusiasts are Germans, and the the leaders in physiological and clinical research are more numerous, and more prominent internationally, in Germany than here or in any other European state.

FOR ADMINISTERING noxious drugs, particularly balsams and oils, no method is better than in capsules. And in the manufacture of capsules great improvements have been made in recent years, so that the present-day machine-made soft elastic gelatine capsule, holding 5 or 10 drops of oil sandal, eucalyptus, wintergreen, etc., plain or with added ingredients, is a neat, small, palatable dose, acceptable to any patient, easily swallowed, and as effective therapeutically as possible. The old-time round and hard capsules have been largely replaced by the oval-shaped, soft capsules, and physicians are rapidly adopting these in practice so far as the desired drugs can be made thus available. We are advancing into an era of capsule medication.

AT THIS SEASON of the year digestive disturbances, diarrheas, summer complaint, etc., are at the head of the list of most prevalent affections. Unrestrained and illogical drinking and eating, especially in children, cause most of the troubles—which usually bring emergency calls for the practitioner. The medical journals teem with exhaustive treatises on these summer diseases, and there is none so experienced but a little additional knowledge may be acquired from reading this literature. We have abstracted the gist of numerous reports, and present the matter on various pages of this issue.

METHYLENE BLUE, as we have mentioned before in these columns, is coming into great popularity, and reports of its usefulness in malaria, in gonorrhea, and in bladder and kidney troubles are increasing in number. It is of unusual importance with this drug to insist on having a chemically pure drug dispensed, and not a comparatively pure dye-stuff. It makes the difference between success and disastrous failure.

THE "compound salol" capsule, referred to on page 17, is a 20 minim capsule containing a 1 gr. U. S. P. Pepsin tablet, with 4 grs. salol, 5 min. oleoresin cubebs, 5 min. oil sandal, and 5 min. olive oil. According to the various manufacturers of soft elastic capsules this is the most popular capsule made and sold to and through physicians in this country.

Current Literature.

Another Discredited Drug. — Recent literature has contained frequent mention of yohimbine, or johimbine, as it is also written, as a safe and efficient remedy for sexual impotence, but in all probability no such remedy exists. It is without surprise, therefore, that we note Krawkoff's recorded experience in its use (*Klinisch-therapeutische Wochenschrift*, 1901, Nos. 22-25; *Centralblatt für innere Medicin*, July 27th). He tried it on six men (physicians). One of them was in perfect health, and the five others had sexual debility connected with neurasthenia. In not one of them was any aphrodisiac effect produced, but almost all of them showed signs of poisoning. Krawkoff concludes that in cases in which it has been reported to have cured impotence the result has really been due to suggestion, and he adds that its use is not free from danger. —N. Y. *Medical Journal.*

Pruritus Ani.—From a paper by Dr. J. P. Tuttle, in the *Medical News*, the following summary is quoted in the New York *Post-Graduate :*

A disease characterized by itching of greater or lesser degree. In some it is very slight, in others intense, some itch at night, others only during the day, some are very easily relieved, in others it is intractable.

Any pathological condition about the anus nnd rectum, such as hemorrhoids, fistula, colitis, ulceration, etc., etc., may be the cause of it, but the writer cautions us that parasitic diseases, such as oxyuris, scabies, pediculi and ringworm should not be overlooked. Again, constitutional states as rheumatism and uricemia are often responsible. The acute, the hypertrophic and the atrophic varieties of catarrh of the bowel are all characterized by itching.

Treatment.—Find the cause and remove it. Locally hot or cold water, carbolic acid, larkspur, salicylic acid have all been used. Author uses carbolic acid 10–20 per cent., salicylic acid 2–10 per cent., boric acid 5 per cent. Glycerin or cold cream enough to make 100 per cent.

Pertussis, with Acute Emphysema.—In the severe paroxysms of whooping cough the heart and tissues are subjected to severe strain. Such is the case in the child before us. We are told that the whooping cough is now in the fourth week. The attacks are severe. The child becomes cyanotic almost to the point of convulsions, and at the end of the paroxysm lies panting and exhauxted on the floor or bed, with a very rapid heart-action, which gradually subsides. Such cases are markedly improved by taking them to the seashore, even in cold weather. They require camphor and benzoic acid as an expectorant and heart tonic, and should receive 20 drops of weak salt water into each nostril every four hours. This keeps the naso-pharynx moist and reduces the frequency of the attacks. Should the cough be troublesome at night one or two doses of antipyrin may be given with ad vantage.

Whooping cough with broncho-pneumonia in very young children is often fatal. Older children may have pertussis, measles or scarlet fever, broncho-pneumonia and empyema in succession and eventually recover.—Dr. A. Caillé, in *Post-Graduate* ((N. Y.) *Clinic.*

Don'ts in Connection with Heart Disease.—Don't feel called upon to give digitalis as soon as you hear a murmur over the heart. Study and treat the patient, not the murmur.

Don't forget that the pulse and general appearance of the patient often tell more than auscultation.

Don't neglect to note the character of the pulse when you feel it. Possibly you may look at the tongue to satisfy the patient; feel the pulse to instruct yourself.

Don't think that every systolic murmur

at the apex indicates mitral regurgitation; every systolic murmur at the aortic interspace, aortic stenosis. The former may be trivial; the latter may be due to atheroma of the arch of the aorta.

Don't say that every sudden death is due to heart disease.

Don't forget that the most serious diseases of the heart may occasion no murmur. A bad muscle is worse than a leaky valve.

Don't examine the heart through heavy clothing.

Don't give positive opinions after one examination.—*Philadelphia Med. Journal.*

Digestive Disturbances in Children in Summer.—*Annals of Gynecology* says editorially: The time of year is fast approaching when to every physician, but more especially to those of us who are located in or near the city, there comes a large number of cases of infants or young children with digestive disturbances. Perhaps no class of cases have received so much attention during the past few years as this. Medical men are not yet agreed as to the relative importance of the various methods of treatment. It is generally conceded that pure food, uncontaminated with germs, is one essential element. Another, undoubtedly, is fresh air and sunlight; a third is wisdom or perhaps more properly common sense in the choice of foods for children and in the frequency and amount in which they are given. City authorities have recently insisted upon absolutely pure milk. Milk that is obtained from clean cows, in clean stables, by clean milkers, and delivered in clean bottles, by clean milk-men. Now this seems a long chain of individuals who may any one of them fail either regularly or occasionally, and the failure of any of them means contaminated milk. That uncontaminated milk is furnished or can be furnished to the public at anything like 4 or 5 cents a quart we do not believe. Probably it can be done for 10 or 12 cents a quart, but the general public will not pay any such a price. For a sick baby the parents are usually willing to do almost anything that the physician directs, but a well child or even a convalescent child is expected to digest food much in the same way that other children or adults do. So long as this is true we believe that pasteurization should be advised certainly in warm weather.

Scarlet Fever.—Dr. F. D. Millard, in a treatise in *Pediatrics*, May 15, 1901, summarizes his method of treatment, thus: There is no specific discovered so far. Isolation in a fully ventilated room is the first essential, and all unnecessary articles of furniture should be removed. The disinfection of clothing, bedding, food receptacles, etc., should be carefully directed by the physician. In mild cases the treatment of the patient should be simple; more harm is done than good by overdrugging.

Rest in bed, liquid diet, milk being one of the best, plenty of good water to allay the thirst and eliminate the poison, with some mild cathartic, calomel being one of the best, is about all that is needed. The free use of milk, buttermilk, plain and mineral waters, with some of the potash diuretics, dilutes and weakens the poison and greatly lessens the danger of post-scarlatinal nephritis. For the throat a mixture containing Tinct. Ferri Chlor. is very good. The following answers the purpose very well:

Tinct. Ferri Chlor..... dr. 2.
Glycerinae.
Syr. Simpl.....āā oz. 1.
Aquæ.....q. s. ad oz. 3.

M. Sig.: One teaspoonful every three hours while awake.

Potassium chlorate should not be given internally, as it is irritating to the kidneys. For a mild diuretic there is nothing better than potassium acetate. Pot. Cit., Sweet Spt. Nit. or Pot. Bicarb. may be added; but these are not necessary; the acetate will do the work equally as well alone.

The nose and throat should be kept clean by spraying with an atomizer or by

using the nasal syringe recommended by Holt. Hydrogen dioxide, to which is added four or five parts of water or any mild antiseptic solution will answer the purpose. Gargles should be given to patients old enough to use them. If this is done, the danger of ear complications is lessened and the throat symptoms greatly alleviated. The temperature can be controlled by lukewarm sponging or bathing. It is best to have the water not lower than 90 degrees Fahrenheit at the beginning of the bath, which can be lowered to the desired point by slowly pouring in cold water. Acetanilid, phenacetin, salicylate of Sodium or antipyrin may be used with good effect when the symptoms are severe, the temperature high and the patient nervous and restless. Caffeine citrate should be added to the coal-tar derivatives to counteract their depressing action on the heart. The complications must be treated as indicated. If the heart becomes weak, strychnin, digitalis and alcohol are the best remedies.

The inflammation of the kidneys which is apt to follow this disease is due to the irritation of the toxins eliminated by them. Put these organs at rest as much as possible by rendering their excretions bland. This is done by sponging, warm baths, saline cathartics, milk diet and water with Liq. Pot. Citrat. as a diuretic. Counter-irritation over the kidneys should be maintained with poultices and mustard paste. When the urine becomes scanty and dropsy is marked free diaphoresis should be reduced by hot pack or the vapor bath, and, if necessary, pilocarpine given hypodermically. Morphin, atropin, chloral-hydrate and potassium bromide are the remedies commonly used to control convulsions; also inhalations of chloroform. Hot mustard baths are important, with cold affusions or ice to the head; but if symptoms are very urgent, nothing is more certain to give immediate relief than venesection. The depressing effect often following this procedure can be mitigated by an intravenous injection of normal salt-solution.

For the relief of scarlatinal rheumatism, morphin is the best remedy to control the pain, which is sometimes very severe. A glycerin-ointment, spread thickly on absorbent cotton, wrapped around the joint, and left on from thirty-six to forty-eight hours, has served the writer admirably in this complication; and with this the administration of sodium salicylate till the effect of the drug is noticeable.

Obesity and its Treatment.—Dr. Strebel, in addition to the well-known dietary prescriptions, contributes some interesting details to the treatment of this obstinate condition. He adds the electric light to the usual procedures. Hot-air baths constitute one of the best means of keeping the conditions in check, but it is only too frequent that precordial distress, palpitations, syncope and vomiting are induced by this means; certain patients with heart trouble cannot take such baths. For such especially are the electric-light baths available. Among the gymnastic exercises advised by the author is the familiar one of resting on one's back and coming to the sitting posture. This should be done regularly ten to twenty times at a séance, once or twice a day, on rising and retiring. As a cardiac tonic he recommends camphor, preferably in oil, used hypodermically. The electric-light séances are to be carried out twice a week. After an exposure of twenty minutes to an arc light, the neck is enveloped in cold compresses, and after the séance a bathing at a temperature of 86° F., followed by five minutes at 64° F., then massage and friction.—*Deutsche Medicinische Zeitung*, 1901, No. 3, S. 28; *American Journal Medical Science*, May, 1901. — *Modern Medicine.*

Zomotherapy in Tuberculosis.—The precipitous quest for specifics in the treatment of disease sometimes prevents us from giving due attention to more simple but not less important therapeutic procedures. In no disease is this more true

than in tuberculosis, for, with the exception of the constructive remedies, the therapy of this affection is practically still in a chaotic condition. A form of therapy, although still in an experimental condition, but nevertheless deserving of recognition, is that known as "zomotherapy," which may be broadly defined as the administration of raw meat or its active ingredients. The word itself is derived from a Greek word signifying broth, and will be recalled by students of Greek as appearing in the description of the "black broth" of the Spartans. The word was first proposed by Richet and Hericourt. (*Semaine med.*, 1899, p. 404.) These observers stated, as a result of their experiments upon dogs, that when these animals were fed with raw meat the development of experimental tuberculosis was somewhat retarded, while on the other hand, animals kept for purposes of control and who were fed upon ordinary diet, quickly succumbed to the experimental inoculation of tubercle bacilli. Henry Harper (*Lancet*, March 9, 190, p. 694) claims to have obtained good results from the administration of pure urea in human tuberculosis, and his experiments even show that the addition of urea to culture media inhibits the growth of tubercle bacilli. The most recent observations on this subject, however, appear to be of quite a dissenting character as evidenced by the researches of C. Fränkel and G. Sobernheim, of Halle, Germany (*Berliner klin. Woch.*, July 15, 1901, No. 28), who claimed to have found so little difference in the ultimate condition of animals that had, and those that had not, been fed with raw meat, that they discarded the matter as unworthy of further experimentation. This controversy should all the more awaken the interest and stimulate the zeal of investigators, inasmuch as several imperfectly recognized factors seem to show that this form of therapy has for its basis several well authenticated facts. It will occur to every observer that the negro, whose proneness to tuberclosis is so well known that it need not be discussed, partakes of but little food that is rich in urea; and the southern portion of the United States, where he lives practically in the open, still is ravaged to an appalling degree by tuberculosis. Another point of considerable importance, but one still unsupported by definite statistics, is the question whether individuals with a uric acid diathesis are not less affected by tuberculosis than others. If zomotherapy proves clinically successful, it still remains for biologists and chemists to show whether the action of raw meat is simply to be attributed to its stomachic properties, in that it increases the assimilation of nourishment, as claimed by Chantemessé (*Sem. med.*, 190, p. 203), or whether, as Richet believes, substances are present in meat juice which retard the development of tubercular granulations, or finally, whether, as Maragliano believes, the meat juice acts as an irritant, thus giving rise to the formation of antitoxic materials in the organism.—Editorial in the *Phila. Medical Journal.*

Therapeutics in Germany.—The following editorial from the *Cleveland Journal of Medicine*, gives food for thought: The present desirable tendency of medical thought in Germany to therapeutics is well brought out by Hemmeter of Baltimore in a recent number of the *Philadelphia Medical Journal.* Hemmeter speaks of the skepticism and nihilism of clinicians in Germany 30 or 40 years ago as the direct result of the great strides that were at that time being made in pathology. The discovery of the pathologic basis of disease seemed to make men hopeless in regard to cure. It has gradually dawned on clinicians and has been especially emphasized by Von Leyden of Berlin that it is better to heal the patient without too strict reference to the organic basis of his difficulty. Diagnosis is necessary, but the patient should be treated. Active as are the Germans in the discovery and manu-

facture of new drugs, Hemmeter regards the most striking feature of the German clinics to be the tendency to relieve and to cure the disease by other methods. Diet and nutritive therapeutics, hydrotherapeutics, gynastics and massage, hot and cold air treatment, all of these, and the specific remedies of which the most perfect type is probably the diphtheria antitoxin are enough forever to remove from Germany the stigma of therapeutic nihlism which has so long been imputed to her.

It is only fair to say that the treatment of the patient was an earlier object of the practician in this country than in Germany. This may have been partly due to the fact that the great strides in pathology were not made here.

A useful suggestion by Hemmeter is a congress for the study of malignant diseases, which are increasing at an alarming rate in this country. In Berlin expositions have been held for the exhibiting of apparatus for the sick, tables, feeding cups, bandages, catheters, in fact, everything mechanical that may be used about the sick-room. Such expositions are already to some extent adjuncts, along with exhibitions of remedies by drug-houses, at our medical conventions, and are a by no means useless feature of these gatherings.

Eucain in Spinal Analgesia.—Dr. Jedlicka, of Prague (*Sbornik, klin.* Vol. II., No. 3), has tried cocainization of the spinal cord in seven cases, and has had unpleasant experiences with the drug. He therefore replaced it with Eucain (Alpha-Eucain Hydrochlorate). This he employed in 83 cases of laparotomies of various kinds, operations on the lower extremities, perineum and scrotum, and in various gynæcological operations, with very excellent results.

The injection was always carried out with technical precision, and there occurred after four minutes an analgesia beginning at the feet and proceeding up to the body in segments. In seven to ten minutes it had reached the naval or even the breast. The extension of the analgesia does not depend upon the dose, but upon the diffusion of eucain in the cerebro-spinal fluid. This can be favored by placing the patient in an appropriate position, employing a proper amount of the solution, and diminishing the pressure of fluid within the canal. It is, therefore, well to allow a little of the fluid to escape before making the injection; at least as much as the amount to be introduced should be allowed to run out.

The phenomena that occur after the injection may be divided into three phases. The first is the stage of analgesia, which usually begins four minutes after the injection, and is heralded by formication and numbness of the lower extremities. In some cases paralytic symptoms appear also, such as a feeling of weight and heaviness in the legs; but very rarely is there complete paralysis. The heart action may be slower or increased, but is otherwise, save in the aged, normal. In fact, this method of anæsthetization had better be avoided in old persons. Other symptoms noted were nausea and vomiting (only when the stomach was empty), paresis of the sphincter ani, dermographism, and erection of the penis.

During the second stage the patient feels well and is in normal condition.

The third stage begins three to six hours after the injection, and is characterized by headache and increase of temperature. After three hours these symptoms cease; in exceptional cases they last until the next day. The author believes that they appear in consequence of reaction of the membranous envelopes of the cord. If the headache is very severe the patient can be relieved by lumbar puncture and the removal of a little cerebro-spinal fluid. The relief is absolute; and the headache can be prevented by letting a little of the fluid of the cord escape before making the injection. This procedure has some influence upon the rise in temperature also.

Experiments with the injection of indif-

ferent fluids in dogs have proved that spinal analgesia cannot be effected with them, especially as no destructive action upon the cord must be caused.

The author recommends spinal analgesia, as effected at Maydl's Clinic, in the very heartiest manner. It is an excellent method, that entails no serious danger. It is of inestimable value in patients suffering from heart and lung disease, to whom ordinary narcosis would be extremely dangerous.—Abstract from *Die Therapie der Gegenwart*, Berlin, April, 1900.

Dymal.—Dr. L. Kopp has made some studies on a new compound—didymium salicylate—which has been termed dymal. It is an impalable powder, without odor or taste, and is best prescribed in the form of an ointment. In deep ulcers of the leg, cutaneous gangrene, and burns, even of the third degree, it has proved of value. Its action as an antiseptic is demonstrated also in a variety of infected wounds. It is of value, in the author's hands, in eczema, in psoriasis, in hyperidrosis, in ichthyosis, and pruritus. Its comparative inexpensiveness gives it an advantage over some of the newer products used for the same purpose. It is a chemical by-product.—*Therapeutische Monatsheft*, 1901, Heft 2, S. 127.—*Amer. Jour. Med.*

Heroin as an Analgesic.—Drs. Brown and Tompkins, resident physicians of Howard Hospital, Philadelphia, have recently reported (*Therap. Gaz.*, August, 1900) their experience with heroin as an hypnotic and analgesic. They believe the hydrochlorate to be the best salt; it is incompatible only with apomorphine and the alkalies; the dose is one-twelfth to one-sixth of a grain, and can be repeated. Its use was observed and tabulated in fifty cases in which it was indicated as an analgesic; in sixteen as a hypnotic.

The action of the drug took place in forty-three cases inside of twenty minutes; in seven cases no action was observed. The effect of the drug was maintained from four to six hours. Contraction of the pupils, subsequent constipation and idiosyncrasies were not noted. From the data which they have collected they believe themseloes warranted in stating that heroin is a safe and reliable hypnotic and analgesic.—*Bulletin*, Cleveland General Hospital.

Oil of Wintergreen in Acute Rheumatism.—Rottenbiller (*Klin. ther. Woch.*, vii, p. 582) reports one hundred and twenty-two cases of acute rheumatism treated with oil of wintergreen. He was first led to employ this remedy because if the disagreeable symptoms oftentimes produced by salicylate of sodium and the latter also not infrequently failed to relieve the arthritic symptoms. He uses purified natural oil, but declares that he is prejudiced against the synthetic product. At no time has he noticed any unpleasant results from the administration although it was frequently taken for three months. In addition to the wintergreen hot baths were used. When they produced pain wintergreen was relied upon to induce profuse perspiration and quiet the pain. The remedy is administered in gelatine capsules of one and one-fourth grains each. The average daily amount was six grains and in no case was eight grains exceeded. The routine procedure was to give two capsules at bedtime, two more an hour later and one or two continued in the course of the night, thereby insuring in most cases about twelve hours of rest and freedom from pain.—*Bulletin*, Cleveland General Hospital.

Treatment of Insomnia.—Dr. G. Lyon, speaking of the general lines of treatment, says that hygienic measures occupy a foremost place. Alcohol, tea, coffee, and tobacco should be stopped, and the diet regulated. It is unwise to permit such patients to eat too heartily, and all foods which have been found to digest slowly should be avoided. This is of importance, as patients should not be permitted to sleep while digestion is going on. The

temperature of the sleeping room should not be above 60° F. It is inadvisable to have a fire in the room, and the windows should be open. From the stand-point of medical treatment he recommends for simple insomnia trional, chloralose, urethane, amylene hydrate, and somnal. In conditions accompanied with fever potassium bromide with a small amount of morphine is one of the best hypnotics. In insomnia from pain he recommends morphine hypodermically, chloral, combined with morphine and hypnal, being analgesic from the antipyrine it contains. In certain special forms of insomnia definite medication is advisable; thus for tertiary syphilis potassium iodide is of more value than hypnotics; in cardiac diseases, circulatory remedies; in paludal poisoning, quinine sulphate; in Bright's disease, a milk diet; in tuberculosis, morphine is more valuable, and in insomnia of dyspeptics, dietary regimen.—*Revue de Thérapeutique*, 1901, vol. lxviii., p. 178.—*Amer. Jour. Med. Science.*

Treatment of Gonorrhea.—Balch (*Boston Medical and Surgical Journal*, February 7, 1901) states that it is best to treat cases of acute gonorrhea twice daily for the first week or 10 days, and subsequently to allow the patient to use an injection 2 or 3 times a day for 2 or 3 weeks longer. As abortive remedies he prefers silver nitrate, potassium permanganate and protargol. He uses silver nitrate in a solution of 1 grain to the ounce or, if the inflammation is not very active, in a solution of 2 grains to the ounce; protargol in ½ per cent. solution, weaker if there is much scalding; and potassium permanganate in a solution of 1 to 4000 in large quantities rather than a less amount of a stronger solution. It is often necessary to give mild astringent injections with any of the above solutions to remove the gluing together of the lips of the meatus in the morning. If the patient is first seen after the disease is well developed, injections, if used at all, should be very mild. It is best to rely on medicines, such as the citrate or acetate of potassium, which make the patient thirsty. The same result is secured by drinking large quantities of water; Compound salol capsules are efficacious, and should be taken after meals and before going to bed. In obstinate cases it is occasionally surprising to see how promptly the discharge subsides when all the treatment is suspended.—*American Medicine.*

Disinfection of Typhoidal Excreta.—N. B. Gwyn (*Philadelphia Med. Journal*, Jan. 12, 1901), after insisting upon the importance of infected typhoidal urine in the dissemination of typhoid fever, reports his results in studying the effects of various antiseptics upon urine containing typhoid bacilli. In conclusion, he states that milk of lime is not deserving of the name of disinfectant. Carbolic acid is useful in large amounts and in strong solution if a rapid action is desired. Formalin is efficient, but very expensive for ordinary use. Bichloride of mercury, chlorinated lime, and liquid chlorides are very valuable, are rapid in action, and are efficient in comparatively dilute solutions. For disinfection within five minutes he states that of a 1 : 20 carbolic-acid solution one needs half the volume of urine to be disinfected; of a 1 : 40 carbolic-acid solution one should use two-thirds of the volume of urine to be disinfected; while of a 1 : 1000 bichloride of mercury only one-fifth of the volume of urine is necessary; of a 10 per cent. formalin solution, three-tenths the volume of urine should be used; of saturated chlorinated lime one-fortieth the volume of urine, and of liquid chlorides two-fifths the volume of urine. He states that the disinfection seemed to be quite as rapid in urines containing albumin as in those free from albumin. For irrigation of the bladder he states that solutions of bichloride in strengths of 1 : 100,000 to 1 : 50,000 are most successful. He considers urotropin the only substance which produces any effect when given by the mouth.—*Amer. Jonr. Med. Sciences.*

Therapeutic Notes.

Insomnia of Alcoholism.—Dr. D. R. Brown (*Trans. Seventh International Congress on the Abuse of Alcohol*) recommends for patients suffering with acute alcoholic delirium or alcoholic mania:

℞ Chloralamid..... 1·0 (gr. xv.)
Hyoscin hydrobrom, 0.0006 (gr. $\frac{1}{100}$.)
—*Buffalo Medical Journal.*

For Neurasthenia with Anemia:—

℞ Ext. Sumbul..... gr. i
Asafoetida..... grs. ii
Mistura Blaud..... grs. iii
Acidi Arsenosi..... gr. 1/30
Stoychninae..... gr. 1/60
Phosphori gr. 1/100

M. Fiant pil No. i. S. 3 to 4 pills daily on empty stomach. In anemia, cold sweats, feeble heart, especially with neurasthenia, I know of nothing equally valuable.—T. P. Miller, M.D.

Treamment of Tic Douloureux.—Grandclement, of Lyons, recommends the subcutaneous injection of cocain and antipyrin at the seat of pain. He uses this solution:

Distilled water..... grams 10
Antipyrin..... grams 4
Cocain..... centigrams 5

Some of the cases thus treated were cured permanently after injections daily for some weeks.—*St. Louis Med. Review.*

Acute Infectious Diarrhea with Pain.—

℞ Tannalbin..... ʒiss.
Calomel..... gr. j.
Dover's powder..... gr. xv.
Saccharin..... gr. $\frac{1}{4}$.
M. . Dispense as twenty powders.

One every two hours for first three doses, then every fours to six hours for child of one year; two powders per dose for child 3 years old.—*Medical Bulletin.*

Summer Complaint.—

℞ Tannalbin..... ʒij.
Salol..... gr. x.
Dover's powder,
Peppermint-oil sugar, of each, gr. x.
M. Dispense as twelve powders in parchment papers.

For child one year old, give one powder; at first every two hours, then every four to six hours. For child of two years two powders constitute the dose.—*Med. Bulletin.*

Chloralose.—Dr. J. Tyson, who is the only conspicuous advocate of choralose, contributes another report on this hypnotic to the *Journal A. M. A.* (April 6, 1901), with the following conclusions: It is a prompt and safe hypnotic; its action is more prompt than any other drug except morphine; it is more prompt and efficient in smaller doses than chloral. Five grains is the maximum dose, and may be repeated in an hour; small doses should be tried first.

Antipyrine in Rheumatism.—At a recent meeting of the Société de Thérapeutique, Paris, M. Linossier reported on the use of the newer aromatic synthetics in rheumatism. He believes that in doses of forty-five to sixty grains a day the results are identical with those obtained from the salicylates, and the disagreeable effects much less. He further thought that antipyrine had a distinct effect in diminishing the tendency to pericarditis, endocarditis, and other cardiac complications.—*Revue de Thérapeutique*, 1901, Vol lxviii., p. 151. —*Amer. Jour. Med. Siences.*

Dionin in the Treatment of Nervous Excitement.—Majewsky (*Vratch*, Vol. XXII, No. 6) presented before the Society of Neuropathologists and Pyschiatrists at the University of Kasan the results obtained by him with dionin. He employed it in the insane, especially maniacs, in the stage of excitement. Altogether nineteen cases are reported. The conditions in which this drug was administered were mental excitement accompanied by congestion of the cerebral blood-vessels; also in sexual excitement. It appeared that subcutaneous injections of 0.04-0.05 grms of dionin constricted the blood-vessels and thus relieved the congestion. In some cases the sexual excitement was allayed and the erections diminished. The author considers it a valuable remedy in acute masturbation accompanying transient mental disturbances. The internal use of the drug is not followed by the same powerful effects.—*Phila. Med. Jour.*

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, AUGUST, 1901. No. 2.

Leading Articles.

FURTHER EXPERIMENTS WITH NIRVANIN AS A LOCAL ANESTHETIC.

By M. A. AUERBACH, Ph.G., M.D., New York.

I wish to offer an additional report of five cases which have been successfully operated upon with the aid of nirvanin as a local anesthetic:

Case I.—Mr. Vincenco C., had his thumb crushed whilst placing some iron rafters in place on a building then under construction. The thumb was badly lacerated while small particles of mortar and cement had been ground into the tissues. A 2 per cent. nirvanin solution was injected around the base of the injured member, and allowed to remain for two minutes before operating. The wound was then cleansed and rendered as antiseptic as possible. The patient complained of no pain or discomfort at any time during the operation, while the wound healed in two weeks without suppuration.

Case II.—Mr. N. J. D. called at my office to have a fish-hook extracted from his index finger. The hook was in the finger several hours before the gentleman called upon me for treatment. I injected a 5 per cent. solution of nirvanin and allowed it to remain for five minutes, as in this case I had to deal with an inflamed area, which, as we know, retards the action of local anesthetics. After breaking off the barb the hook was easily and painlessly withdrawn.

Case III.—Mrs. J. M. This case was a neglected bone felon. The bone of ungual phalynx of the middle finger had already become necrosed beyond repair, and had to be amputated. This was done under a local anesthetic, namely a 5 per cent. solution of nirvanin injected around the base of the finger. Fifteen minutes was allowed to elapse before the amputation was begun, which was completed without the slightest pain or discomfort to the patient.

Case IV.—Miss L. B. was suffering from a small growth in the groin, which at times annoyed her in walking. This growth proved to be a small fibroma only requiring excising, as it was of the benign type. I prepared the surface by sterilization and shaving for the small operation which I concluded to perform, injecting a 5 per cent. solution hypodermically of narvanin. After allowing about 6 to 8 minutes to elapse I made an eliptical incision, removing the skin and the growth at once. The patient was blindfolded throughout the whole operation, and only after the stitches, which were three in number, were inserted, did we allow her to see what had been done. She felt no pain whatever.

Case V.—Mr. K. P., a laborer, whilst carrying some building material to the elevator shaft, and making it fast to the windlass, had some mortar or lime fall into his right eye, causing him great agony. He came to my office about five minutes after the accident to have the particles removed. A 2 per cent. solution of nirvanin, filtered, was painted in the eye with a camel's hair brush. The pain was immediately lessened to such a degree that a thorough examination and cleansing of the eye could be performed. No damage was done and by the occasional application of a 2 per cent. nir-

vanin solution to allay the irritability and pain, the patient was able to resume his work the next morning.

In venereal work, such as the passing of a sound, or the dilating of a stricture, it has proven itself invaluable. Its efficacy is far superior to cocain. It is the anesthetic par excellence.

*THE LOCAL USE OF THE NORMAL SALINE SOLUTION.**

By FREDERICK C. TAYLOR, M.D.,

Instructor in Surgery, Cleveland College of Physicians and Surgeons; Visiting Physician to St. John's Hospital.

The value of normal saline solution (a six-tenth of one per cent. solution of sodium chloride, or roughly estimated—a teaspoonful to the pint) as a therapeutic agent, so far as its internal use is concerned, is too well-established to require any argument at my hands. In shock, collapse, either simple or that resulting from excessive hemorrhage, toxemia, etc., it has been and is being used with signal success. In laparotomy every surgeon has noted the marked improvement in rhythm and volume of the pulse of his patient after he has filled the abdominal cavity with a saline solution. The practical value of intra-abdominal, intravenous, intrarectal and subcutaneaus administration of saline solution has been established beyond question and by observers of ability and unimpeachable integrity.

The local use of normal saline solution however, has received but scant mention in literature; it is to this use that I wish to call attention.

Normal saline solution is said to correspond to the fluid portion of the blood—to be the ordinary pabulum of the corpuscles. Investigators have noted after its use, the marked increase in the number of colored disks as well as an increase in numbers and in activity of the leukocytes.

The saline solution, therefore, not only fills the collapsed vessels, in case of excessive hemorrhage, for instance, and thereby relieves the overstrained heart, but it also stimulates the blood corpuscles and indirectly the nerve centers.

Assuming that normal saline internally administered stimulates and tones up the corpuscles, is it not reasonable to assume that it may be of value as a local application in many cases where chemical antiseptics are used to-day?

Bichloride of mercury, carbolic acid, formaldehyde and boric acid, are beyond question antiseptics and germicides, and when applied to an ulcerating or granulating surface, they are of undoubted value in destroying the micro-organisms present, but while they are destroying the micro-organisms they are also destroying the delicate granulations.

Nature has provided an army of defense against septic invasion—the phagocytic power of leucocytes is admitted by all physiologists. Why not then assist nature—feed and stimulate these fighters and thereby repulse the septic invasion?

I do not wish to be understood as advocating the entire abolition of chemical antiseptics, but I do maintain that in many cases a more rapid and satisfactory result may be attained by assisting nature—by supplying the white corpuscles with an over-abundance of food, without attempting to destroy the infection by "chemical antiseptics."

McBurney (International Text-Book of Surgery) says: "It (normal saline) is the *only* chemical preparation that does not produce irritation when brought into contact with wound surfaces. After its use aseptic wounds may be closed, for the tissues will have suffered no more injury than is caused by the ordinary operative manipulations, and septic tissues, already weakened by bacterial poisons, will be more capable of resisting pathogenic organisms than if exposed to caustic applications."

My experience in private practice and

* From *Bulletin* of the Cleveland General Hospital.

in the wards of the hospital where I have had abundant opportunity of testing the relative merits of the normal saline solution and the various antiseptics, has convinced me that there is a wide field for the local employment of this valuable therapeutic agent.

I have seen many times an unhealthy, necrotic surface, after twenty-four hours saturation in saline solution, change absolutely—the purulent discharge diminish—the unhealthy granulations assume the red hue of health and beginning cicatrization be most evident. The tissues rapidly absorb saline solution, hence greater care is required than in the employment of corrosive sublimate or similar chemicals in solution.

There is no danger of using too much, but rather danger of using too little. The wound should be dressed in the ordinary manner—sterilized gauze next to the surface and over it a thick layer of cotton; this should be thoroughly saturated with saline, and over all placed an impervious covering — oil silk, rubber sheeting or something of that nature.

If the denuded surface is large the absorption will be exceedingly rapid and in an hour or two the dressing will be found to be practically dry. Hence the solution should be added frequently and in large amounts. The protection can be easily opened and fresh saline poured on without disturbing either the patient, the dressing, or the wound's surface. It is probably needless for me to say that the solution should be sterilized. In itself saline has absolutely no germicidal power—it acts indirectly by increasing the resisting power of the tissue.

The application of normal saline solution to burned snrfaces has been advocated, and I am satisfied, from experience, that in this employment it is the agent par excellence. The relief from pain is almost instantaneous—the convalescence is rapid, and the resulting cicatrix is slight compared to the amount of damage to the tissues and to that found after the employment of any other therapeutic agent with which I am familiar.

I believe that the discriminating use of the normal saline solution as a therapeutic agent will prove most satisfactory to both patient and surgeon. A not inconsiderable experience has given me every reason to continue and recommend its use.

*THE TREATMENT OF BURNS IN INFANCY AND CHILDHOOD.**

By CHARLES WARRENNE ALLEN, M.D., New York,
Consulting Dermatologist to the Randall's Island Hospitals, Attending Surgeon (Department of the Skin) to the Good Samariian Dispensary, etc.

In attempting to formulate modes of procedure for the relief and cure of injuries to the skin produced by rays of heat or contact with heated substances, we are at once confronted with the peculiar fatality attached to extensive burns, which is probably more pronounced in the early periods of life than in any other time.

The exact cause of the quickly fatal outcome is, in many instances, so obscure that the clinician or therapeutist finds himself at a loss, and, aside from guarding against shock and fortifying the system against the exhaustion which will follow fever and suppuration, possesses few arms and little ammutition with which to fight off the insidious visceral complications.

In a general way it may be stated that when more than one-third of the cutaneous covering is involved in a severe burn the outlook is unfavorable.

We cannot here enter into a discussion of the various theories advanced in explanation of death within the first forty-eight hours, when there has been but little pain and when gastric or duodenal ulceration has not been found on post-mortem examination. If in a given case it could be determinod that the leucocytes were being destroyed in a rapid manner or that oligocythemia were present, or that some toxin was making itself felt upon the heart

* From *Pediatrics*, March 15, 1901.

threatened paralysis, perhaps a rational plan of treatment could be quickly instituted.

In a paper written several years ago Dr. Lustgarten advocated the use of atropin hypodermatically in these cases on the theory that the toxin formed is in the nature of muscarine, an extremely poisonous alkaloid discovered in putrifying fish, and being the active poisonous principle of the agaricus muscarius.

In one case it seemed to act beneficially, but I have never heard of atropin having been further tried. In children, of course, the dose would have to be proportionate to the age and severity of symptoms.

Burns in children are, for the most part, due to the accidental contact with hot water, sometimes to a bath of which the temperature has not been properly regulated, and occasionally to the application of the hot water bag or bottle. X-ray, electric and sunburns are not common in the vesy young.

A question of diagnosis is apt to come up now and then between dermatitis calorica due to the careless bathing or prolonged contact with hot bottles, on the one hand, and some form of pemphigus or even of hereditary syphilis on the other.

Large blebs and areas of skin, the epidermis of which is being shed in large shreds, may be thought to be some skin disease when the true cause has been external and accidental. The association with irregular patches of erythema or possibly eschar will point to burning as the cause. On the other hand it has been my good fortune, at least twice, to make the diagnosis of pemphigus presenting an unusual amount of exfoliation when suspicion had been cast upon an attendant of having burned the infant.

In the milder degrees of burn the lesions are erythematous, but if the surface involved be very extensive the prognosis cannot even then be considered brilliant.

Although the pain is not usually very great at first, our first efforts are directed to calming the patient, and then to combatting the effects upon the nervous system which, as already intimated, may be excessive.

To meet the indications of sudden vital depression and shock aromatic spirits of ammonia in appropriate doses will generally be found as efficacious as anything. Unless the child is too young for the drug to be used at all, opium in dose proportionate to the age may be employed until a quieting effect upon the system has been secured.

As a local application, I know at the present time no more promptly and permanently beneficial drug than picric acid for burns of the first and second degrees. Applied in a 1 per cent. watery solution it has the effect of giving almost immediate relief from pain and healing takes place rapidly under its use. After the burned area has been coated once or twice with the solution a thin layer of absorbent cotton may be applied dry, over this a layer of impervious tissue, then as much cotton as is required for warmth, protection, exclusion of air, and germs, etc., and over this a loose bandage.

At subsequent dressings all may be removed excepting the layer next the skin which may be made wet with the picric solution and the dressings be applied as before.

Not only is the pain greatly diminished by not removing the dressing next the skin, but the danger of outside infection, leading to complications, is decidedly decreased.

To secure the same effects I at one time applied tincture of benzoin or aristol in collodion directly to the burned surface but this is attended with some pain in itself while the subsequent cracking and flaking of the collodion may act as an irritant. Dusting the parts with subnitrate of bismuth forms a protecting, antiseptic, and healing dressing, but all powders are apt to cake or harden and form lumps and after a time cause irritation. Iodoform, which has been such a favorite dressing for so many, has never been so with me.

I never employ it at all, because of the odor, if anything else will answer as well and because of its marked tendency to cause local and general poisonous effects. Iodoform dermatitis is not uncommon in the young, and fatal poisoning has been reported from its external use in a child two weeks old.

The pain of erythematous areas may be great relieved by local baths containing nitrate of potassium or bicarbonate sodium in saturated solution. Where there are raised water blisters these may be carefully cut away at the edge and a layer of cotton soaked in a saturated solution of potassium chlorate, to which a little glycerine is added, may be applied over the wound, as suggested by Lutand.

In deeper and extensive burns a permanent bath offers one of the best means of securing comfort and warding off a fatal issue. A single limb may be placed in an improvised or especially made long, narrow tub arranged for continuous inflow and outflow of water, or the water can be frequently renewed, keeping the degree of warmth pretty constant.

The permanent bath for the entire body as employed for burns with excellent results in the Vienna Hospital can be imitated in the severe burns of infancy, since the comfort of the sufferer repays the pains taken to carry out the method.

As the granulations from and tend to exuberate a better cicatrix than otherwise can often be secured by brushing over the surface a strong solution of nitrate of silver or passing over the granulations with a solid stick of silver.

Among soothing remedies the old "carron oil" is the best known and probably most extensively used. It has the advantage of being easy of preparation from ingredients usually at hand or easily obtained.

For several years I have been accustomed to add some antiseptic to the lime water and olive oil as they are being stirred into the mayonnaise-like dressing. For this purpose boric acid powder (5 per cent.) or thymol (1 to 1,000) or carbolic acid (1 to 500), or orthoform (1 per cent.), or any of a number of other antiseptics may be used.

In some cases I have used the 3 per cent. methylene blue solutions which I have recommended in infantile intertrigo, eczema, etc., also in burns, but although it is somewhat analgesic the results are not to be compared with those from picric acid, which I have mentioned.

Various soothing ointments have been advocated and are made with boric acid or salol, or bismuth may be used. Vaseline seems at times irritating, so that it may be better to employ lanolin and lard in any given case.

One important point, it seems to me, is to refrain from removal of the dressings. If thin layers of gauze, cotton or cheesecloth come next the wound these need not be taken off, but the application, whatever it may be—solution, oil, or ointment, may be applied over and through the dressings. In this way the chances of subsequent infection are also lessened, and if there was no primary infection the chances of extensive suppuration are reduced to a minimum. The more the atmospheric air is excluded by surrounding the parts with absorbent cotton the less will be the mechanical irritation, while injurious friction, admission of germs, etc., will be guarded against.

VULVOVAGINITIS IN CHILDREN.

Dr. H. B. Sheffield in the *New York Medical Journal*, August 4, 1900, gives an interesting clinical study of this affection.

In speaking of the etiology of vulvovaginitis in children he says that little is done to prevent the disease from spreading in public schools and baths, that many physicians still cling to the "scrofulous theory" of the affection and recommend tonic treatment. He emphasizes the importance of a careful microscopic examination of the discharge in every case of vulvovaginitis and upon the de-

tection of gonococci the necessity of strict isolation and perfect cleanliness. To prevent the occurrence of gonorrheal ophthalmia he recommends the use of a snugly-fitting vulvar pad, held in place by means of a T-bandage, and the instillation of a ½ per cent. solution of protargol into the eyes of the patient. To prevent the occurrence of peritonitis as the result of the propagation of the infection into the internal genitals he advises against the use of the douche, or, if the douche be used, it should be hung at a distance of not more than 2 feet above the child.

The treatment differs somewhat with each variety. Foreign bodies must be removed, and worms are easily destroyed by the use of small doses of calomel and santonin and by the use of injections of a strong decoction of quassia wood. For the arrest of the vaginal discharge he uses a 2 per cent. protargol solution in the gonorrheal cases, and a 1 per cent. solution of the same remedy in all other cases. When the mucous membrane is very sensitive a weaker solution may be used, but the writer has used a 5 per cent. solution without any ill effects. The following method is now used by the writer in treating cases of vulvovaginitis in children.

The child is placed in the dorsal posture, and the legs are spread wide apart. The exuding pus is wiped away with absorbent cotton, and by means of a glass syringe holding ½ ounce of a 5 per cent. solution of sodium bicarbonate is slowly and repeatedly injected into the vagina until the accumulated pus is evidently removed. This is followed by the injection, through a small soft-rubber catheter, of one or two syringefuls (depending upon the age of the child) of the protargol solution referred to before, and this is allowed to remain in the vagina about five minutes by bringing the labia closely together. This process is repeated from three to five times in twenty-four hours. When the urethra is implicated he prescribes the following crayon:

℞ Protargol, } each.....12 grains
Iodoform, }
Peruvian balsam.....6 drops
Extract of belladonna.....1 grain
Cacao butter.....A sufficiency.

M. Make twelve crayons 2 inches in length and ⅛ inch in circumference.

Direct.—One to be introduced into the urethra once or twice a day.

In gonorrheal vaginitis he orders also the insertion of one of these crayons at bedtime. No irritation follows this method of treatment, and it is usual to find the gonococci, as well as most of the discharge, disappear within ten days. The strength of the protargol solution is then gradually diminished. The advantage of this method of treatment over all others in vogue can be well illustrated by the fact that, of the first 65 cases of vulvovaginitis under his care, none had been cured in less than four weeks, most of them running as long as two months, while under the protargol treatment almost all of them ended in recovery within three weeks. Furthermore, the forty-six cases of gonorrheal vaginitis which were treated with protargol were, with but one exception — inguinal adenitis — entirely free from complications. In painful micturation the administration of alkaline sitz-baths is very beneficial. At times alkaline diuretics prove useful. If there is severe pruritus, or if there are marked symptoms of inflammation of the genitalia, the child is put to bed and a powder of zinc oxide and starch is applied, special attention being paid to keep the surface perfectly dry. It is a good rule to stop the use of the injections gradually and to keep the little patient under observation for at least two weeks after the entire disappearance of the symptoms. It is especially imperative that no case of gonorrheal vulvovaginitis should be pronounced cured unless three microscopical examinations of the vaginal secretion prove negative.

Hemorrhoids.—The following suppository is recommended by *La Presse Medicale* for hemorrhoids:

℞ Aqueous extract of ergot.. 3-12 grains;
Oil of theobroma..... 1 dram.

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Editorial.

FOR MANY YEARS following the epoch-making introduction of cocaine (20 years ago) this local anesthetic remained alone and in undisputed eminence; then, a half dozen years since, came the first synthetic substitute or competitor, eucaine; and after that other aspirants followed in quick order. All have been found valuable; some more and others less, but all good, all with special characteristics. Nirvanin has elicited some especially favorable reports, and its excellence being fairly well-established we cheerfully publish an additional report in this issue. It is worth considering.

A VERY INSTRUCTIVE and practical paper is that on "The Treatment of Burns in Infancy and Childhood," by Dr. Allen, which we reprint from *Pediatrics* on another page of this issue. The author extensively and specifically reviews the agents found useful in practice, and the reader will no doubt profit by a careful perusal of the article.

ONE OF THE most useful of the new remedies introduced in recent years is heroin. Not only have favorable clinical reports, by recognized authorities, appeared without number in the medical press of recent years, but—as true an index to worth and popularity as anything else—the advertising pages of the medical journals show that manufacturers of all kinds of pharmaceutical preparations are incorporating heroin into various compounds—tablets, capsules, syrups, elixirs, etc. At this season of the year, heroin—roughly designated a substitute for codeine—will prove an excellent addition to the formulas for treating current affections.

MANY OF OUR leading medical journals, including those that rarely refer to the commercial side of drugs and therapeutics, are lately devoting editorial space to the consideration of the "substitution" question. The custom of substituting in prescription work is universally condemned in unmeasured terms, and the druggist found guilty of the offense shall receive scant mercy.

But we have yet to see the editor who looks deeper into the subject, and places the blame where it rightly belongs. The druggist or pharmacist—the kind that substitutes—is a small offender, and in most cases an agent only. The reformers must look "higher up;" they must attack the wholesale manufacturer, who imitates every popular standard pharmaceutical specialty, and then instructs his salesmen to spread the substitutes broadcast by specious arguments and cut prices. Go "higher up," to find the worst substitutors.

APOMORPHINE AS A HYPNOTIC.—Douglas points out that while, as is well known, a tenth of a grain of apomorphine injected subcutaneously will produce vomiting, a thirtieth of a grain similarly administered is a prompt and efficient hypnotic. In mild insomnia and in furious delirium it has been found to produce sleep within twenty-five minutes. The sleep is refreshing and restful, and no disagreeable after-effects follow. There is said to be no possibility of a drug habit being formed, as it becomes again a vigorous emetic if the dose is increased. There are no cumulative effects. The drug is therefore a safe one, deserving a widespread use.—*The Hospital Med. Journal.*

Current Literature.

THE TREATMENT OF TYPHOID FEVER.—Stengel (*Therapeutic Gazette*, Nov., 1900) recommends camphor as a cardiac stimulant in certain cases of typhoid fever when the maximum of stimulation is required to combat the depression resulting from diarrhea, tympany or other causes. Camphorated oil, consisting of 1 grain of camphor dissolved in 15 minims of sterilized olive oil may be injected under the skin without pain, and with rarely any unpleasant consequences, such as indurations or abscesses. The oil is quickly absorbed and the stimulation is prompt and continuous, at the same time quieting the nervous system. Injections of 1 or 2 grains may be given every 2 hours, although as a rule 4 hours should elapse before the dose is repeated.—*Amer. Medicine.*

FRESH AIR FOR INFANTS.—One of the most valuable points made in Dr. Holt's able address before the Cleveland Medical Society recently was the importance of fresh air for infants. It is a striking fact that this one thing makes not only a perceptible but an enormous difference in the mortality statistics of hospitals. Of the three essentials of care, good food, and fresh air, the latter is by no means the least important, and the lack of these three factors determines the death-rate of 75 to 95 per cent. in our foundling asylums. It is not reassuring to note the fact that the wealthiest as well as the most intelligent people are taking the greatest pains to exclude fresh air from their houses. The modern house furnished with weather-strips to prevent drafts, and with either steam or hot-water heatars which provide no ventilation at all, or a furnace with an air-shaft which draws its supply from the hall, thus preventing an influx of pure air from without, is as well calculated to conduce to infant mortality as the most deadly of our foundling hospitals.—*Cleveland Medical Journal.—Pediatrics.*

PHOTOGRAPHY OF MEASLES.—Chatiniere (*Arch. de Méd. des Enf.*, Vol. III, No. 9) treated seven cases of measles by means of red light (red curtains being hung at the windows), with excellent results. The temperature fell and the eruptions disappeared rapidly. The room should be moderately large, with two windows, and the bed so placed between them that the light falls directly upon the patient.—*Archives of Pediatrics.*

HEMORRHAGE IN TUBERCULOSIS.—*Treatment:* Hemorrhage will subside spontaneously in nine out of ten cases, if the patient be put at rest. Cold applications are generally useful, an ice-bag being applied over the heart, or over the seat of bleeding, if that can be located without undue disturbance to the patient. Cold food only is to be given, and in small quantities. Use of the voice is to be interdicted, and laxatives should be given to prevent straining at stool. When necessary, the force of the heart's action can be reduced by aconite in appropriate doses, and cough be checked by opium, codeine, or morphine. It is possible that heroin may serve better than the natural morphine. In severe cases morphine may be given hypodermically up to the point of tolerance. The most generally useful drug to promote coagulation of blood and the formation of permanent clot, sealing the wound in the vessel or vessels is crystallized calcium chloride. With this, codeine, turpentine, or thymus extract may be associated. The calcium salt is to be given in dilute solution in comparatively large doses,—say, 15 grains every second hour,—for not more than four days consecutively. If medication is still necessary, lead acetate may then be given,—say, 3 or 5 grains in pill with an equal quantity of tannic acid and perhaps a grain of opium,—three or four times daily. After two or three days aromatic sulphuric acid should then be given, after which, if necessary, the calcium salt may be resumed. Ergot is useless in most cases. Atropine

sulphate, $^1/_{120}$ grain, given hypodermically, at the beginning of hemorrhage will often cut it short. Hydrastinine hydrochlorate is a useful astringent.—S. Solis-Cohen, in the *Journal A. M. A.*, Feb. 23, 1901.—*Cyclopedia of Medicine.*

Fecal Accumulations.—Brunton (Lectures on the Action of Medicines) recommends when the impaction is rather high up in the bowel a copious enema of thin starch mucilage, to which has been added about an ounce of castor oil. The thin starch seems to emulsify the oil better than soap and water, and it is easier to give. Another excellent purgative enema, he states, is official in the British Pharmacopeia; its composition is as follows:

℞ Magnesium sulfate..... 1 ounce.
Olive oil..... 1 ounce.
Mucilage of starch..... 15 ounces.

—*American Medicine.*

Some Fallacies in Therapeutics.—The *Philadelphia Med. Journal* abstracts from a paper by Dr. G. L. Peabody (*Medical Record*, March 30, 1901) the following: The author calls attention to that class of mixtures known as "tonics" and "bitters" which are largely consumed by the laiety. He has fonnd these very generally to contain a large percentage of alcohol. Almost all of these compounds are sold as being non-alcoholic. The writer believes that in a vast majority of cases in which bitter substances actually do increase the appetite this is due to the fact that the mixture contains alcohol. He states the boric acid is another drug which furnishes an illustration of the authority of tradition and the consequent propagation of error. He believes that the disinfecting power of boric acid is so trifling that for practical purposes in this application it must be disregarded entirely. Neither is it to be considered as quite harmless. The use of tannic acid is another agent which may be considered of doubtful value. He believes that there is no warrant for the very convenient opinion that after its absorption it can produce styptic or hemostatic effects upon remote organs. Ergot is known to produce a primary fall of blood-pressure, which is followed almost at once by an enormous and persistent rise of pressure in the arteries. There is no proof that ergot causes any contraction of pulmonary vessels, and it is known to cause a rise in pressure in the pulmonary artery, yet in spite of these facts it is recommended to arrest pulmonary hemorrhage by some authors. Lithium is a drug in regard to which much false impression exists. It is practically valueless as a solvent in gout, even when given in reasonably large amounts, and it is especially likely to disorder digestion. Speaking of arsenic, the author mentions the fallacy that a toxic dose which causes death, must necessarily act as a preservative of the body. Calomel, he says, is still given to stimulate the liver, whereas experiment has long since proved it to be an hepatic sedative. It is at the same time a cholagogue, and so is any laxative which acts upon the upper part of the small intestine, and thus causes a discharge of bile that might otherwise be reabsorbed. His conclusions regarding the usefulness of the iodids are that except in syphilitic disease they have no power of removing hyperplastic connective tissue or of absorbing exudation. He does not believe that it is of any value in chronic lead poisoning. This writer also believes that the space of usefulness of oxygen inhalation under ordinary oxygen pressure is really very limited.

Digitalis.—Dr. W. H. Porter, of New York, closes a valuable contribution on the "Good and Bad Effects Obtainable From Digitalis Used as a Therapeutic Agent," (*American Medicine*, April 20 and 27, 1901), thus:

The conclusions naturally arrived at from this critical review of digitalis, have been based largely upon a close and extensive observation of the drug and its various preparations in all forms of disease. This study of its action has ex-

tended over a period of more than 20 years, both in the hospital wards and in private practice.

The conclusions therefrom are summarized as follows:

1. The composition of digitalis is, chemically speaking, very complex, and some of its active principles antagonize others.

2. That the different preparations differ widely in their composition and action.

3. That its cumulative action is due to its contracting the arterioles, thus shutting off nutrition.

4. It is both a useful and dangerous remedy; and one that has a very limited range of usefulness.

5. That it is only of use in lesions of the mitral valve, and even then only for a short time.

6. That it should only be used when there is low arterial tension and marked venous engorgements and as soon as these conditions are overcome, its action should be suspended.

7. As a diuretic it is only of value when there is low arterial tension, venous engorgement and obstruction to the exit of blood from the kidney.

8. Acting upon the normal, and in all diseased conditions in which there is obstruction to the exit of blood from the kidney, it decreases the excretory activity of the renal glands, and impairs their nutritive activity.

9. If pushed to its fullest extent it may completely arrest the functional activity of the renal glands.

A New Use for an Old Remedy.—Dr. F. C. Gram, Registrar of the Buffalo Health Department, has observed that vaccination exerts an influence on grip not hitherto noticed by medical writers. The health-authorities of that city have just concluded a general vaccination, the work being done at a time when the city was in the throes one of the fiercest epidemics of grip which it has had for years. Dr. Gram noticed that simultaneously with the manifestations of vaccination the grip disappeared. He then experimented on himself, as well as on others, in whom grip had been diagnosed, and in each case the disease was aborted, leaving the patient without any of those annoying and persistent sequels, which are sometimes worse than the disease itself.—*American Medicine.*

The Value of Quinin in Labor has frequently been discussed, and many contradictory reports have been elicited. Its power to initiate uterine contractions is a much debated question, but its value as a stimulant is undoubted; and it has frequently proved useful in maintaining general strength and good uterine contractian. Fussel (*Therapeutic Gazette*, Jan., 1901,) has used the drug in over 100 cases and finds that it produces strong intermittent, quickly recurring contractions, exactly resembling normal labor pains, and entirely different from the tonic contractions produced by ergot. He has found it much more useful in multipara than in primipara, and has never observed that it possessed a tendency to produce bleeding, although Hirst claims that in certain susceptible individuals it will occasionally cause violent postpartum hemorrhage. He administers the drug in doses of 15 grains, and considers that it prevents rather than produces hemorrhage.—*American Medicine.*

Picric Acid as a Local Remedy in Affections of the Skin.—During the last two or three years many writers have testified to the value of picric acid as an antiseptic, sedative and keratoplastic agent in various inflammatory affections of the skin. It has proved especially valuable in superficial burns, acute eczema and herpes zoster. The strength of the solution employed is usually one per cent. Compresses are wrung out of this, applied to the part, covered with a thick layer of cotton, and retained by a gauze bandage. Redressing is not necessary for two or three days. For a few minutes there is

some smarting, but this soon gives way to a sense of relief. The advantages claimed for this treatment in burns are simplicity, painlessness, rapidity of healing, minimum of suppuration, and a smoother cicatrix than is obtained with other methods. It should not be employed in old, deep or suppurating burns. Like certain other local remedies, picric acid seems capable in some instances of causing a generalized cutaneous eruption, as in a case reported by Achard and Clere (*Gaz. Hebd. de Med. et de Chirurg.*, Oct. 11, 1900) in which the application of the acid to a small burn on the face induced a universal scarlatiniform and vesicular eruption with edema and well-marked eosinophilia.—*American Medicine.*

"Cold in the Head:" How it May be Avoided and How to Treat It.—George C. Stout, of Philadelphia, (*Therap. Gazette*, Jan. 15, 1901) presents a readable article on the etiology, pathology, symptoms, prophylxis and treatment of acute coryza. The chief underlying cause is a depressed state of the nervous system which results in sluggishness of the heat-producing centers. Rational clothing, avoidance of draughts, care of the digestive functions, and maintenance of nervous tone are the chief element of prophylactic care. Too much clothing is more apt to be worn than too little. As a preventive measure, a brisk dry massage of the body and limbs, morning and evening, is excellent. After an attack has started, the bowels are to be regulated by a saline cathartic, nerve tone increased by strychnine and excessive nasal discharge restricted by the following tablet:

℞ Morph. sulph..... gr. 1-32
Strych. sulph..... gr. 1-95
Atropinæ sulph..... gr. 1-150
Acid. arsen..... gr. 1-100
Aconitin..... gr. 1-1,000
M. Sig.; One to three daily according to symptoms.

Once daily local treatment is given by the physician with great gentleness. The nose is first thoroughly sprayed with an alkaline antiseptic solution, then by a 1 per cent. solution of cocain containing 2 grains of boric acid to the fluid ounce. After about five minutes is used a 2 per cent. solution of antipyrin followed in 5 minutes more by a very light insufflation of calomel and finally by a protective spray of 1 per cent. menthol in liquid vaseline.—*St. Louis Med. Review.*

Treatment of Hemorrhoids.—J. P. Tuttle, as noted in *Amer. Med.*, believes that in many acute cases of internal hemorrhoids, local and general measures should be resorted to rather than operative procedures. Cold water enemas once or twice a day are of great benefit in order to produce an easy movement of the bowels and to contract to some extent the blood vessels. Injections of mild non-irritating astringents, such as the fluid extract of krameria, fluid extract of hamamelis, or fluid extract of pinus Canadensis, will have a very soothing and curative influence. Suppositories of ichthyol, tannic acid and belladonna are of great benefit, especially if there is an eroded condition of the parts. Resinous cathartics, such as podophyllin, aloin, gamboge, etc., irritate the parts and should not be used. Small doses of saline laxatives, especially sodium phosphate, before breakfast, followed after breakfast by a cold enema, will have splendid effect upon the liver, intestine and hemorrhoids.—*Journal A. M. A.*

The Sequels of Gonorrhea and their Significance in Surgery.—During the past year a series of lectures on syphilis and gonorrhea have been held in Berlin under the Direction of the Royal Bureau of Public Instruction. For the most part, says *Amer. Medicine*, April 6, 1901, editorially, these papers are of unusual merit and are worthy of the careful reading of those interested in this subject. One of the best of these papers, by Professor Franz König, with the above title, appeared in the *Berliner klinische Wochenschrift*, November 19, 1900, p. 1078. He notes with astonishment the slow progress which has been

made in the knowledge of gonorrhea, although this disease was well known long before the time of Hippocrates. Not until the specific organism was discovered by Neisser in 1879 was it understood that this infection may become general and that the gonococcus may be found in every organ and in every body cavity and may even lead to death.

He divides the sequels of gohorrhea into three classes; the local affections in the neighborhood of the urethra, such as periurethral abscesses, strictures, etc. The ascending processes affecting the oviducts and ovaries, or the prostate and testicles, the blader, ureters and kidneys. The blood infections, which give rise to severe acute gonococcus pyemia or the less severe forms affecting the heart, the pleura and the joints. In the limits of his paper he found it impossible to discuss these numerous forms of infection, but to indicate their practical significance he considered only some of the severe infections of the kidney and of the joints. He mentions two extremely severe cases of pyonephrosis, one of them requiring nephrectomy and nearly leading to the death of the patient.

The gonorrheal joint effections are even more frequent and important. He discusses the symptoms, diagnosis, and treatment at some length. To indicate the frequency and severity of these effections he mentions that during the past five years 18 cases of severe gonorrheal infection of the hip have came under his notice. One of these patients died from a double pyelitis which existed at the same time. Of the remaining 17 patients only six were discharged entirely cured. In all the others there was more or less limitation of motion and in 4 there was permanent shortening. These very severe cases of joint and kidney affections are not usually recognized, as they are easily mistaken for tuberculous processes.

The fact that so many severe cases of gonorrheal hip disease occured in the practice of one trustworthy observer makes it evident how important is this form of infection. Probably no infectious disease is much more common or may be followed by more serious results. Yet the gravity of gonorrheal infection has long been overlooked and underrated by most practitioners. It is still common to hear such matters passed off in a light way by men of experience as not more serious than a hard cold. This must be to some extent the result of neglect to keep thoroughly posted as to the results of careful investigations since the discovery of the gonococcus. No doubt it will always be impossible to get rid of this disease entirely, but if it were generally known how serious may be the consequences, the number of infections would no doubt be much less. The education of the public in this respect is chiefly in the hands of the medical profession. Have we been doing our duty in this respect? The establishment, as in Berlin, of a series of lectures by prominent men in all of our large cities, would certainly not be without great influence in the right direction.

Arsenic as a Stimulant of Nutrition.—The recent great "epidemic" of chronic arsenical poisoning in England (says the *N. Y. Medical Journal*, June 29, 1901, editorially) has at least served the good purpose of supplying a large field for the study of the effects of arsenic on healthy persons, and the literature of the drug has in consequence been notably enriched. Among the articles that have appeared, we recall none more valuable than that contributed to the April number of the *British Journal of Dermatology*, by H. G. Brooke, physician to the Manchester and Salford Hospital for Skin Diseases, and Leslie Roberts, honorary dermatologist to the Liverpool Royal Infirmary. These gentlemen deal with the subject systematically, and their article is well worthy of careful study in its entirety. Except for one aspect of it, that in which the arsenic on nutrition is considered, our restricted space forbids our attempting to summarize it, although we may call attention to two

general statements of interest, namely, that female patients predominated among those who sought hospital treatment, although the women of the lower laboring class in the district consume less beer than the men of the same class, which tends to show that women are more susceptible to the action of arsenic; and that the poisonous effects upon the nervous system and those upon the integument were rarely well marked in one and the same individual.

As to the action of arsenic on nutrition, the authors think it stimulates that of certain cells beyond their capability of endurance, so that they perish. They think their observations afford strong evidence in support of the view, put forth by Binz and Schulz, that the physiological effects of arsenic are due to the development of ozone within the system. The arsenic-eating habits of many of the Styrian Highlanders, they remark, afford an excellent instance of the tolerance of arsenic by man. The drug is said to improve the complexion of the women and to maintain the strength and spirits of the men under severe physical exertion. In countries where arsenic is found native, they point out, it has long been customary to administer white arsenic to horses with their food, and, so it is stated, with much benefit to their coats and their general condition. It is added that sheep are reputed to be very tolerant to arsenic. Arsenic kills some micro-organisms, but to others it seems to impart new life. The writers mention the readiness with which mould fungi grow in a solution of potassium arsenite, a fact which has led to the addition of spirit of lavender in the official preparation. They point also to Giess's observation that young rabbits to which small amounts of arsenic were administered regularly grew to an extraordinary size. The restorative properties of arsenic in certain nervous derangements are well known, and perhaps it may find a place in therapeutics as an actual restorer of tissue elements.

THE TREATMENT OF FURUNCLES.—According to the *N. Y. State Journal of Medicine* for April (*N. Y. Med. Journal*) Philipson recommends salicylic acid, in fifty-per-cent. strength, in the treatment of well-formed furuncles. The following paste is applicable for such conditions:

℞ Salicylic acid..... 1 ounce;
Powdered starch..... 1 drachm;
Lanoline..... 1 ounce.
M. Sig.: Apply locally and change three or four times a day, in order to hasten the necrotic process.

When the core has been eliminated, he advises treatment to favor granulations. Minute furuncles may be checked by applying the following:

℞ Tincture of benzoin..... 1 drachm;
Alcohol, enough to make 3 ounces.
M. Sig.: Apply locally three times a day.

In generalized furunculosis the parts should receive a warm bath daily and then be rubbed with the following:

℞ Salicylic acid..... 25 grains;
Vaseline, enough to make 2 ounces.
M. Sig.: To be well rubbed in over the affected area.

THE TREATMENT OF ACUTE RHEUMATISM.—A. P. Luff (*Practitioner*, February, 1901), believes that the best results are obtained by combining an alkaline carbonate with some salicylic compound. He recommends sodium salicylate (20 grains) with potassium bicarbonate (30 grains) every 2 hours until pain is relieved, when the same quantities should be given every 4 hours until the temperature has become normal. Later, sodium salicylate (15 grains) should be given until the joint symptoms have disappeared, and then 3 or 4 times a day until 2 weeks have elapsed. Absolute rest should be enforced throughout. If sodium salicylate is not well borne salicin may be substituted. If after the lapse of 24 to 36 hours the joints are painful, small blisters around the joint will, as a rule, rapidly remove the pain and swelling. Tincture of iodin over the joint is also useful, but methyl salicylate as a local application is more effective. For the relief of pain, Dover's powder or phenacetin may be employed. Brandy is

indicated as heart stimulant, especially when there are cardiac complications. The disease is rarely cured within 4 to 6 weeks, and hence patients should not be allowed to move about after the pain has subsided. The slightest exertion is liable to cause a relapse or to induce cardiac complications, when there is latent rheumatism. In the treatment of children, especial caution against exercise is necessary. Opium is of great value in the early stages of cardiac inflammation, and strychnin and ammonium carbonate are considered to be more efficacious when there is dilation and failing heart-power. Ice-bags, leeches and opium are valuable remedies in pericarditis. Hydrotherapeutic procedures are necessary in hyperpyrexia.—*Amer. Medicine.*

Heart Tonics.—J. N. Upshur (*Journal of the American Medical Association*, Mar. 23, 1901) states that he has found caffein, when given with spartein sulfate and lithium benzoate, especially useful in the dropsical conditions of parenchymatous nephritis, associated with secondary heart involvement. He believes that nitroglycerin is contraindicated in the weak heart of typhoid fever, septicemia and surgical shock. He has found opium in commanding doses a most reliable heart tonic in typhoid fever, when symptoms of heart failure and vasomotor paresis were prominent.—*Amer. Medicine.*

Pilocarpine in Inflammations of the Eye.—*The Monthly Cyclopedia* quotes from a paper by Dr. H. F. Hansell, in the *Philadelphia Med. Journal*, May 4, 1901: Gratifying results obtained with pilocarpine in the treatment of intestinal keratitis, traumatic purulent iritis, vitreous opacities, and retino-choroiditis. Some nerve specialists place great reliance upon the drug in toxic insanity after influenza, autointoxication, and similar processes, the brain rapidly clearing after two or three sweats. Apart from its action hypodermically, pilocarpine or the fluid extract of jaborandi, in small doses by the mouth, have been found to be of value, especially in degeneration of the vitreous. The persistent nausea so common after the use of the drug is usually relieved by small doses of chlorodyne, as suggested by Dr. H. C. Wood.

Ichthyol in Treatment of Deepseated Inflammations.—W. T. Slevin, in N. Y. *Medical Journal*, March 9, 1901 (*Mo. Cyclopedia*) says: After having used ichthyol in a number of different formulæ where the resultant action has not been as desired, a formula has at last been obtained which, if used properly, will relieve deep-seated, as well as superficial, inflammations. The formula is as follows:

℞ Ichthyol..... 45 grains.
Lead iodide..... 45 "
Ammonium chloride..... 10 "
Petrolatum, enough to make 1 ounce.

The substitution of glycerin, rose ointment, or cacao-butter does not alter its efficiency.

It should be applied by rubbing upon the inflamed parts.

Guaiacol Therapy of Gonorrheal Epididymitis.—Goldberg (*Centralblatt f. innere Medicin*, April 6, 1901) has used guaiacol with satisfaction in 25 cases of gonorrheal epididymitis. An ointment consisting of guaiacol, 5 grams (75 grains); lanolin and resorcin, 10 grams (150 grains) is applied every 12 hours until the whole quantity is used in the course of 3 or 4 days. Before the first use of the ointment the patient takes a cleansing sitzbath. The ointment is then applied to the painful part and covered with a linen rag, absorbent cotton, and waxed paper, the whole being held in place by a suspensory. In addition, from 3 to four grams (45 to 60 grains) of salol are given per day. The patient's general condition decides as to whether he is to go to bed or to be allowed to stay up and to follow his usual vocation. More than 3 to 4 days' rest is not necessary. Of 22 patients treated by the guaiacol method, 15 were sick less than 3

days; and all did not have to interrupt their daily work. The local effects were: A prompt removal of pain, if the case was seen in the acute stages; prevention of the swelling, if the case was seen immediately after the onset of symptoms; or an arrest of the swelling, if it was already present. No bad effects upon the heart or lungs were noted.—*Amer. Medicine.*

Petroleum, Physiological Action of.—From a paper by Dr. G. B. White (*Jour. Med. and Science*, February, 1901), the *Cyclopedia of Medicine* abstracts the following:

From experiments the following conclusions concerning the physiciological and therapeutic action of pretroleum emulsion may be adduced:

1. Inhibitory to the growth of putrefactive and pathogenic bacteria such as are met with in the alimentary canal, while it does not inhibit or interfere with peptic on pancreatic digestion.

2. And therefore is an agent for relieving flatulence by preventing fermentation in such conditions of the bowel; in fact, it acts the part of an intestinal antiseptic.

3. By its action in stimulating peristalsis, increasing diffusibility of intestinal contents, it not only increases nutrition and weight, but helps the natural movements of the bowels, by its lubricating power relieves constipation, and favors the elimination of noxious and toxic products from the system.

As to its weight-increasing action, there can be no doubt of that in face of the results of the experiments recorded.

1. The weight gained under its influence is much greater in proportion than it or any other oil could afford, even if digested and absorbed.

2. Petroleum is perfectly incombinable chemically, and indigestible, but the result of the experiments in this direction at once shows that, though this be the case, yet, when the emulsion is mixed with digested food-material, the effect is very different. Its action then is to cause an increased flow of this digested assimilable material (which is weight-giving) through the portal system to the blood and tissues in a given time, which, being deposited each day, leads to accumulation of weight in the tissues of the body. The greater the rate of elimination from the body, the slower will be the increase of weight under the influence of the emulsion.

Six Notable American Medical Achievements.—In an interesting address recently delivered to the graduates of the Medical and Dental Departments of the Columbian University in Washington, Dr. G. E. de Schweinitiz picked out for special distinction the work of six American doctors in medicine and surgery. These contributors to science, who have each done some epochal work, are Beaumont, for his work in gastric digestion; Gerhard, for his observations that led to the differentiation of typhoid and typhus fevers; Gross, for his pioneer work on pathological anatomy; Oliver Wendell Holmes, for his recognition of the contagiousness of puerperal fever; H. C. Wood, for his work in therapeutics; and S. Weir Mitchell, for his rest cure. This list might, as Dr. de Schweinitz justly says, be somewhat enlarged, and we should certainly not omit from it the names of Ephraim McDowell, who performed the first ovariotomy, and of that greatest benefactor of all, Morton, to whom the world owes the first practical demonstration of ether anesthesia. As Americans, we cannot too jealously guard the fame of Morton, for there has been at times some tendency to detract from the honor which is his. Dr. de Schweinitz's address was an eloquent plea for the originality of the best work that has marked the progress of medicine in America, and was especially appropriate to the occasion. American medical students and graduates cannot be taught too earnestly to respect the work of their own countrymen, and not to look abroad too exclusively for knowledge and initiative.—*Philadelphia Medical Journal.*

Therapeutic Notes.

Lumbago.—Masse (*N. Y. Med. Journal*), recommends energetic rubbing of the following liniment:

℞ Lime water..... 60 parts.
Olive oil..... 60 "
Chloral..... 30 "

For Hepatic Colic.—To Chauffard (*Revue médicale de Normandie*, May 10) is ascribed the following formula:

℞ Olive oil.....from 4½ to 12 ounces;
Cognac..... ½ an ounce;
Rolks of 2 eggs;
Menthol 7½ grains.
M.

To be taken in two doses at half an hour's interval.—*N. Y. Med. Jour.*

A Laxative Electuary for Children.—A contributor who signs himself "A. G." contributes the following to the *Journal des praticiens* for June 1st:

℞ Manna in tears..... 25 parts;
Calcined magnesia..... 50 "
Washed flowers of sulphur, 50 "
Cassia pulp..... 25 "
Honey 25 "
M. Sig.: One or two soupspoonfuls, in a cup of warm milk, for habitual constipation.

Three or four spoonfuls may be given for a purgative effect.—*N. Y. Med. Jour.*

For Whooping Cough.—The *Journal A. M. A.* says that Dr. R. A. Lancaster has had great success in treating whooping cough with this mixture:

℞ Tinc. belladonna..	16.00–24.00	℥iv.–vi.
Whiskey	30.00	℥i.
Phenacetine.....	10.00	℥iiss.
Fluid ext. chestnut leaves.....	180.00	℥vi.

Mix. Shake Label.

Dose: From ten (10) drops for a child one year old to a teaspoonful for a 10-year old every two to six hours.—*Buffalo M. & S. Journal.*

To Allay Thirst in Fevers.—According to the *Medical Brief* for June, *Clinica Moderna* recommends the following mixture as beneficial in allaying thirst and fever:

℞ Pure glycerin.....7½ drachms;
Citric acid..... ½ drachm;
Distilled water, enough to make.....25 drachms.
M. Sig.: From one to two tablespoonfuls at one dose.—*N. Y. Med. Jour.*

An Intestinal Antiseptic:—

℞ Betanapthol.....	3.00	gr. xlv.
Chloroform.	.03	gtt. xv.
Castor oil.....	90.00	℥iii.
Spirit of peppermint,	.02	gtt. v.

Mix. Adult dose: A tablespoonful in port wine, beer or sweetened black coffee. Child's dose: A teaspoonful.—*Medical News*, from the *Jour. de Med. de Bordeaux.*

Heat in the Treatment of Gonorrhea.—The *Medical Press and Circular* for June 5th says that attention has recently been called to the fact that the therapeutical effects of irrigations of the urethra by Janet's method are greatly increased by employing the solutions of permanganate of potassium or other salt at a comparatively high temperature; indeed, it is confidently asserted that the temperature is of more importance than the chemical composition of the solution. The temperature should not be less than 98° F. and may advantageously be carried to 120° F. These hot injections are stated not to give rise to any untoward consequences.—*N. Y. Med. Jour.*

Book Notices.

Clinical Examination of the Stomach. By Ira Carlton Chase, A.M., M.D., Fort Worth, Texas. 33 pages, paper cover. Price, 50 cents.

This is an excellent little manual though making no claim to originality. Some of the introductory statements regarding physiology are of doubtful authenticity and the use of the stomach tube is, in our opinion, objectionable. The great trouble with all books of similar scope is that they resemble the hole which the Greek sophist cut in the door for his kitten. The old cat couldn't use the small opening and the kitten could just as well go through the other, larger hole. No one could possibly become sufficiently familiar with practical gastric chemistry by a condensed manual, still such a work may save handling a large volume. Our criticism is entirely a general one, Dr. Chase having done all that could be accomplished in so condensed a form.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Leading Articles.

*THE USES AND ABUSES OF ARSENIC.**

By F. C. SIMPSON, M.D., Louisville, Ky.

Arsenic is one of the most valuable medicaments, and one which is not as popular as it should be among the profession generally. Many practitioners, who see few cases of skin diseases, seem to have an idea that arsenic can be administered in almost any lesion of the skin with advantage, failing to recognize that, as a rule, it is contraindicated whenever the layers of the skin are inflamed; and that it is most useful when the epiderm is dry and improperly nourished; and of very little use when the corium is inflamed.

Psoriasis is a typical disease of the former class, and in its treatment arsenic is a standard remedy. As stated above arsenic should not be prescribed during the inflammatory stage of a skin disease. In certain cases when used it should be continued for weeks or even months. As a result of the continued employment of arsenic in cases in which it ought not to be used, great damage is sometimes done by its too free administration. We must also remember that the drug given in large doses is capable of producing renal irritation, as well as irritation of the stomach and intestines, and that a condition of irritability of the membranes of the body generally is sometimes caused by too large doses.

Dr. Howe calls our attention to the use of arsenic as a valuable appetizer in doses of a minim of Fowler's solution with ten grains of bicarbonate soda and a tablespoonful of infusion of gentian taken before meals. I have used it in this way and certainly found it a very valuable tonic; it is also useful in certain forms of morning diarrhea and nausea; it is also valuable in the treatment of various forms of enemia and in such cases it must be given over a long period of time.

It is hardly necessary to remind you that arsenic is almost a specific in the treatment of chorea, of its value as a blood tonic in malaria, or its great value in diabetes and asthma. It is held by Murray and others that it is useful in asthmatic cases in the young or the old when there is marked emphysema. It is also valuable in cases that have nasal disorders due to hyperemia of the respiratory mucous membranes.

While recognizing the value of arsenic we must not forget that it is possible for it to produce evil influences, that it is capable, when administered too long a time in large doses, of causing pigmentation of the skin, irritation of the stomach and of the respiratory tract, and, more serious still, peripheral neuritis.

In the treatment of chorea I find it of the greatest value; it must be used in increasing doses, and this is one of the few diseases in which arsenic is so valuable that you have to give in ascending doses even to tolerance. I find it of the greatest value in the obstinate and often incurable cases of pernicious anemia. These cases yield better to arsenic than to any other known remedy, given in small doses and continued for months. Small doses are not likely to produce stomach disturb-

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ances. The effect of the drug in this disease is not due to its increasing the number and quality of the red blood corpuscles, but rather to its preventing or delaying their distruction in the portal circulation. By timely use of laxatives and carefully watching the dosage you may easily adjust the blood-making forces.

Dysmenorrhea, frequently noticed in women, with a tendency to asthma or chronic skin diseases, is often cured or benefitted by arsenic.

Arsenic ranks next to quinine in the treatment of malaria; for instance, chronic cases where quinine has lost its powes, are markedly benefitted by this drug.

Neuralgia, headaches and anemia of malarial origin are very amenable to arsenic.

Fowler first reported the remarkable efficiency of arsenic in neuralgia of the intercostal and fifth pair of nerves. It is equally as valuable in these cases whether the disease be due to malaria or general debility.

I have frequently gotten very good results from this drug in pulmonary phthisis, especially in those cases where there was excessive expectoration and slow degenerative processes. The good effect of arsenic is shown by rapid improvement of the general condition, there being a lessened pulmonary secretion, a general improvement in the appetite and increase in the body weight. It is contraindicated in phthisis where the cough is hoarse and paroxysmal with but scanty secretion and tendency to hemorrhage. Where we want to improve the nutrition of our patients I find it the most valuable of tonics. It has not the power of increasing red blood cells, but it stops the destruction of the cell and thereby shows its great influence on the general nutrition.

I do not know of any tonic that we can expect to give us better results than arsenic when administered in the proper way.

In regard to the preparation to be used, it is simply a matter of preference. I find the liquor potassii arsenitis to be the most useful in a general way and employ this preparation more than any other. I believe the reason that failure sometimes follows the administration of arsenic is because its use is not persisted in for a sufficient length of time.

DISCUSSION.

Dr. Louis Frank.—At present I do not use much arsenic, but previously when I did more general practice, I saw a few cases of chorea in which arsenic was used. I believe the efficacy of this drug is very largely overestimated as a specific for chorea. My experience was that putting these patients in bed and keeping them quiet, giving a tonic, iron or almost anything else, would be of more benefit than the administration of arsenic and allowing the patient to go about.

I remember one boy who had chorea to whom I gave arsenic for two or three weeks without any improvement; he was then put in bed and kept quiet for a couple of weeks; improvement was rapid, and under tonics he went on to a perfect recovery.

In this one disease any other tonic will answer the purpose just as well as arsenic, if the patient is put to bed and absolute quiet and rest enforced.

Dr. J. M. Ray.—My experience has been similar to that just related. I often see cases of so-called spasm, mimic spasm, blinking of the eyelids, twitching of the corners of the mouth, muscles of the neck, etc., in children. In the last six months I have seen a number in boys between six and fifteen years of age. They have been brought to me with the idea that there was some throat or eye trouble which was a factor in the spasmodic condition. In several of them I examined the eyes, finding little or nothing wrong, probably some little local irritation.

Early in my professional career I had been taught that all these were cases of chorea, and that Fowler's solution was a

specific in this disease, and I have almost universally recommended a course of Fowler's solution and I have not seen a great deal of immediate benefit from its use. They get well, but as to whether Fowler's solution or time does the work I am in doubt.

One case in particular I have in mind, that has been seen by others of this society, all of whom recommended Fowler's solution, yet the boy still has facial spasms which are a source of mortification to his parents and himself. His eyes have been carefully examined and little or no defect found.

There is a preparation of arsenic not mentioned by Doctor Simpson, in which I have a great deal of confidence, espcially in certain cases of late specific disease and as an alterative, viz: Donovan's solution. I have found it about as good a preparation of arsenic as there is.

Dr. B. C. Frazier.—I think the whole secret in regard to the administration of arsenic, is to give an amount sufficient to get the therapeutic effect of the drug. Those persons who work in the arsenic fields are long-lived, they have great power of endurance, and people who become addicted to the use of arsenic,—those who have the arsenic habit,—seem to live a long time and do well in spite of the fact that we were taught that arsenic in long-continued large doses is an irritant to the stomach and the kidneys. These people become tolerant to the drug just as people do to any other drug, it produces strength, great power of endurance, great power of breathing, great power to go a long time and endure a great deal. I happen never to have seen any of these persons, but there have recently been written a number of interesting articles on the subject published in both the medical and lay press.

Dr. C. Skinner.—One reason good results are not gotten from arsenic is that it is not given for a sufficient length of time. Three weeks is too short a time to determine what effect arsenic is going to have; three months would be better. If necessary to quiet the fears of the family, the drug may be discontinued for a week and then resumed; but we can get no effects from arsenic in two or three weeks. I give it in increasing doses until I get the constitutional effects, and it is wonderful how tolerant patients become to the drug. You will remember Mr. McC., the young athlete who died about two years ago. When he was ten years of age I boarded in the house with his people; at that time he was in bad health, having a chill every day; he became sallow and looked ill. I was asked to see him and administered arsenic in gradually increasing doses; when the dose reached thirty drops three times a day he began to improve; he had no more chills and eventually became perfectly well. Arsenic certainly has a good effect in malaria, and I give it for its effects.

Dr. F. C. Wilson.—I have used arsenic a great deal as a general tonic, also as an anti-periodic, and in various diseases, and have gotten good results from its administration. In chorea the dose has to be increased to the point of tolerance. I have given as high as fifty-six drops at a dose three times a day for several weeks, to a child twelve or thirteen years of age, resulting in a cure of the disease. I have always, however, watched the effect of the drug very closely, especially its effect upon the kidneys. I have seen some very unpleasant results from the too prolonged administration of this drug. I recall a case that came to me at one time suffering from general dropsy which was apparently attributable to the prolonged use of arsenic, given by a physician in the country without caution as to the length of time for which it should be taken. This patient moved to the city and continued the medicine that had been given by her physician in the country, and only when she noticed this general swelling did she consult medical advice in the city and thus fell into my hands. The general dropsy was apparently attributable to the prolonged use

of arsenic from its action upon the kidneys. The patient finally got well, but it was a very obstinate case to deal with. I always try to avoid unpleasant results of this kind by exercising proper care in the administration of the drug and closely watching its effects. Arsenic is a valuable remedy in skin diseases, nervous affections, as a general tonic, and especially in certain forms of chronic disease.

Dr. A. M. Cartledge. — I am probably something of a crank on the subject of arsenic. It is a well-known fact that many members of the profession, after they practice for a time, gradually begin to lose faith in the potency of drugs, and continue as they grow older in practice to contract the list of therapeutic agents. If we sift matters down to the bottom, we find there are very few things that we really know anything about, and realize that we cannot hope to benefit our patients in a great many instances by the administration of drugs.

In regard to the question of arsenic: I am probably too much of an enthusiast to rationally discuss the matter as it demands. I think arsenic is the most wonderful drug in the entire pharmacopeia. You cannot find anywhere in the literature of the subject record of any experiment that has determined its real action. In our medical training we were taught to classify it among the alteratives, one of the drugs that produced some change in the metabolism which we were not able to fully understand or appreciate. If there are any such drugs as alteratives in the materia medica, arsenic should take first place. With two or three exceptions it is about the only drug I use. I get more benefit from the use of arsenic than all other therapeutic agents combined.

I do not believe, if you will pardon the statement, that one physician in a hundred knows anything about how to give it. As soon as the eyelids become puffed, the classical symptom that enough has been given occurs, I think the patient is already in a state of toxemia. The drug should be continued for months if you want to get good results, and it is the rarest thing in the world that I give more than four drops of Fowler's solution at a dose. I never push it until there is puffiness about the eyelids, gastric pain, etc. Pushing arsenic until the lids are puffed is equal to giving mercury until the gums are touched, neither of which should be done.

In anemia there is no remedy to compare with arsenic. If physicians will use arsenic in small doses long continued, whether the microscopic blood count will bear out this statement in a scientific way or not, the clinical evidences all point to the fact that it is a better builder up of red blood corpuscles than iron or any other agent that we possess. It changes color, it gives strength, it gives appetite; how these results are brought about I do not know. We do know that arsenic does not form any appreciable per cent. of the composition of blood tissue—for the blood is a tissue,—like iron does; but my belief is that arsenic acts very much deeper than this, it gives a greater oxygen carrying power to the blood cells than any other drug does. Therefore it is the best drug we have in the treatment of all anemic conditions, and in chlorotic females it is better than iron. In chlorosis, for instance, where there is a strong nervous element, the action of arsenic is sometimes marvelous. In local congestions of any part of the system nothing can be compared to the action of arsenic. Take a man with a hypersensitive, congested prostrate gland, arsenic is indicated. I know a prominent gentleman at one time who had been treated two years, a very intelligent man, who was growing rapidly into a sexual pervert as a result of deep irritation of the prostatic urethra. He was treated by means of sounds, applications, massage, etc., and I think the greater number of physicians to whom he applied for treatment thought he was a crank and was becoming crazy. After nearly three years of sufferring that man was com-

pletely cured by the administration of nothing but arsenic. A local congestion, at this one point was relieved by this agent alone. This is not a single illustration, the same thing applies to the various forms of neuralgia; arsenic will relieve many of these cases after everything else has failed.

It is unnecessary to call attention to the importance of giving arsenic in malaria. The most extensive researches were made several years ago by the President of the Italian Board of Health in regard to the malaria of the Italian Valleys, probably the most severe type of the disease known, and after experimenting with various agents, his conclusion was that in connection with quinine there was nothing equal to arsenic. He stated that after long continued malaria, where the blood is thoroughly charged with the malarial poison, there is nothing better than arsenic and lemons combined. In chronic forms of malaria where the blood has been impoverished from the malarial poison, arsenic and lemons are the only reliable agents.

In regard to chorea: It is probable that better effect would be noted if arsenic were continued for a longer time. I have treated some cases of chorea successfully with this drug, and some were not successful. I remember two cases in one family which were cured by arsenic alone.

As a general tonic, in cases of disturbed or perverted circulation in any part of the body, even in those cases where we have no knowledge as to what the pathological lesion is, it is sometimes wonderful what this drug will do, but it should never be given in sufficient dosage to produce the toxic symptoms, such as puffing of the lids, etc.

Dr. J. E. Hays.—I read a paper before this society at one time on the use of arsenic in skin diseases. I found that benefit was only to be obtained in certain forms of skin affections, notably psoriasis, as mentioned by Doctor Simpson in his paper. I have also had good results from the use of arsenic in pemphigus. With these two exceptions I have derived no benefit from its use in skin affections. I give it in the form of the iodide in tablet triturate, usually commencing with one-hundredth grain going up to one-twenty-fifth of a grain at a dose. I never give it until the characteristic symptoms occur from large doses, such as puffiness of the eyelids, intestinal irritation, etc. I think arsenic is a very much over-estimated remedy in the treatment of skin diseases; it is a much better nerve remedy than a skin remedy.

I have found the best results to be obtained from its use in chorea; I usually administer no other remedy in this disease. Of course there are other factors to be taken into consideration in this disease, such as rest and quiet, which are of much importance. Better results are obtained from the persistent administration of small doses than larger doses given for a shorter time. Arsenic will affect a cure in most cases of chorea if persisted in for a sufficient length of time.

My experience with arsenic in skin diseases has been rather limited within the last few years. I remember in the earlier days of my practice I gave it largely in the treatment of the eczemas, but never noticed any decided benefit from its use. Now I only employ it in the treatment of psoriasis and pemphigus.

Dr. F. C. Simpson.—Doctor Cartledge has voiced about what I had intended saying in my closing remarks about the use of arsenic. There is no question that many physicians do not use it in the proper way. They go on giving it in increasing doses when it is not demanded, and they soon get puffiness of the eyelids and gastric symptoms. In some cases it is impossible to give six or eight drops of arsenic at a dose without producing gastric disturbances, and its use has to be discontinued. It should be given in small doses, and continued for a long time.

My experience with arsenic in the treat-

ment of chorea is not like that of Doctor Frank. Recently I have treated three cases of chorea, giving them nothing but arsenic, they were not put to bed, they were allowed to go about as usual, and all of them have gotten well. In one case marked improvement was noticed in a week, all jerking ceased, etc., but of course arsenic will be continued until all symptoms disappear. The other two patients recovered within one month. Perhaps if I had put these patients in bed they would have gotten well quicker. I treated a good many cases of chorea in the Masonic Home a few years ago, arsenic was used exclusively, and they all recovered.

I believe the action of arsenic is to stop the destruction of the red blood cells. It is certainly a most valuable tonic, and if there are any true alteratives arsenic stands at the head.

PRURITUS TREATED WITH ALUMNOL.

By Dr. P. C. Sutphin, Canmer, Ky.

Probably too little attention, as a rule, has been given to the treatment of pruritic diseases, which though long known and easily recognized, are nevertheless often still difficult of cure, and often, again, chronic in character.

Presumably, every physician who has practiced medicine for any length of years, has seen more or less of such cases—cases not only of long standing, but that taxed his best efforts to cure them. As these diseases, however, are usually not "serious," and may go on indefinitely without any fatal results, so they only elicit a passing consideration, so to speak, and hence, the still comparatively uncertain and backward treatment of them.

Whilst this is so, however, there is no class of disease attended with more discomfort, none in many respects more harassing, and none outside of the more painful affections, more intolerable, or that call more loudly for relief. Imagine one, for instance, never able to get a good night's rest for months, or it may be for years, who, to put it in common language, must "claw" and "scratch" off and on, all night, to relieve an itching that, for the time, bids defiance to all sleep, and renders it impossible, and then we have presented to us the well-known character of these diseases.

These preliminary remarks are intended more particularly to show, in a brief way, the importance of bestowing a higher consideration upon the subject of these diseases, resulting, as it must be supposed, in some more advanced and efficient means for their general treatment. In the mean time, I have had several stubborn cases of it, under the two forms of *pruritus* and *pruritus genitalium*, under my professional treatment within the last twelve months, in which alumnol, first employed by me tentatively, and after that altogether, in them, proved quite an "advanced step" in the treatment of the four cases. To specialize, I take up, in the first place,

Case No. I.—This was a case of senile pruritus and, in the person of a well-to-do farmer, and formerly a prominent member of the Kentucky legislature. His age 72, weight some 250 pounds. Health outside of his pruritus good, save occasional attacks of transient muscular rheumatism. Had had pruritus for two years when he came under my treatment. Had been prescribed for by his family physician, and had used various "patent" ointments, but with only partial, temporary relief. I prescribed for him as follows:

℞ Alumnol,
Camphor āā..... 40 gr.
Lard..... 1 oz.

℞ Rub camphor up fine, and add alumnol and lard.

M. Ft. Ungt. S. Apply before going to bed.

Seeing him in a few days after I prescribed for him, he said he was greatly and promptly relieved, and in some three weeks after that he reported himself as "well," and he has continued so up to the present time, now several months.

Case No. II.—Pruritus vulvae. Woman in advanced stage of pregnancy. Pruritus "formenting." Prescription same as in case No. I. Prompt relief from the first, and after the use of the remedy a week, the case well, without further recurrence of the disease.

Case No. III.—Prominent dentist, age 49. Had suffered from pruritus ani, as he informed me, for some five years. Had used various remedies for it from first one source and then another, but with no permanent benefit. Put him on alumnol grs. lx, camphor grs. xl, vaseline 1 oz., made into an ointment, and to be used night and morning. One week's use of the remedy effected a cure, and he is now no longer troubled with the disease, six weeks having elapsed since he first used the remedy.

Case No. IV.—Senile pruritus ani, Male. Disease of four year's standing, as he informed me. "Bothered" him mostly at night. Had done but little for it. Put him on same prescription as No. III, with the result, a rapid cure, now continuing for several weeks.

While these four cases include but two forms of pruritus, yet, if upon further use of the remedy, it proves as efficient as in the cases just named, then alumnol may be considered quite a specific in these forms of disease at least; that is, the anal and vulvar, while it is not improbable that it would also prove equally efficacious in all pruritus generally of the genital organs.

What it would do in general pruritus I could not say; but if it proves no further valuable than in the cases under mention, then it will be a long progressive step onward in the successful treatment of such cases.

A Lotion for Urticaria.—The *Journal des praticiens* for June 1 (*N. Y. Med. Jour.*) attributes the following formula to Gaucher:

℞ Alcohol, Sulphuric ether, Chloroform, each...300 parts;
Menthol..... 1 part. M.

TROPHONINE: AN IDEAL NUTRITIVE IN PHTHISIS PULMONALIS.

By J. Leffingwell Hatch, B.Sc., M.D., F.R.M.S. (London.)

Late Professor of Laryngology in the New York Clinical School of Medicine and Laryngologist to the German West Side Dispensary.

The question of alimentation, in health as well as in disease, is one of such vast importance that it has held the attention of hygienists from the time of Hippocrates up to the present day. During all this time they have been striving after a perfect food; that is, one in which the nitrogenous and non-nitrogenous are so combined that we get the greatest amount of assimilation with the least expenditure of vital force.

A natural food that comes nearest to this ideal is human milk, but when we try to substitute the milk of other animals for this we immediately meet with difficulties, such as the casein forming tough curds on account of being in too large a proportion; the reaction changing rapidly from alkaline to acid on exposure to the air; and if we try to correct the proportion of casein by dilution with water we reduce the amount of carbohydrates and fats below what they should be, so that in order to get the greatest amount of assimilation from cow's milk we have to

1st. Reduce the proportion of casein by dilution with water.

2d. Soften the casein by adding sugar of milk.

3d. Make the milk alkaline by adding potassium salts.

4th. Increase the carbohydrates by adding milk sugar.

5th. Increase the amount of fats by adding cream and top milk.

And, even then, in order to make it assimilate it must be reduced to lower chemical terms after ingestion at considerable physical expense.

Food of whatever nature as soon as it enters the alimentary tract commences to

undergo a series of chemical changes to fit it for assimilation, this series of changes is termed digestion, and the ultimate end is conversion of non-diffusible proteids and starch into highly diffusible peptone and sugar, and the emulsifying of fats.

The peptone and sugar pass directly into the portal vessels by osmosis, while the fats enter the blood indirectly by means of the lacteals. It is here in the blood that the white blood corpuscles take upon themselves the burden of carrying this pabulum to all the rest of the hungry tissues.

In a healthy individual where all the emunctories function properly, this reduction to a common denominator is accomplished with very little expenditure of force, but when the individual is weakened by disease these chemical changes are brought about only by great exertion of the physiological mechanism and with an immense expenditure of vital force.

Consequently, it has been the work of physiological chemists to try and discover a predigested food, so to speak; that is, one that is nearly if not quite peptone, sugar, and fat before its ingestion into the economy.

John Carnrick has been working with this end in view for the last thirty-five years, and during that time has prepared several so-called artificial foods, but has only just struck the keynote in *Trophonine.*

Trophonine is a liquid preparation of albuminoses and enzymes of digestive glands, to which have been added organic iodine, phosphorus, iron and maganese. It is of a dark-brown color, and has a warm pleasant taste not unlike that of an old Madeira wine, or a cordial, which gives a stimulating effect as soon as imbibed. The albumins are prepared from beef, nucleo-albumin from lymphoid structures and gluten of wheat, these are combined in such proportions that they form a perfect food, and being acted upon by the enzymes form a solution of antipeptones, hemipeptones, and peptones. It will at once be seen that a food of this sort is ready for assimilation immediately upon its entrance into the digestive tract without necessitating further chemical action.

Being concentrated it furnishes the largest abount of nutriment in the smallest amount of material, and gives the greatest amount of force with the least expenditure of energy.

It is palatable and non-irritating to mucous membranes so that it can be borne with ease by stomachs that reject the approach of nearly everything else, and as it is pre-eminently ready for complete absorption it leaves no residue in the intestinal tract to undergo fermentation or foster pathogenic micro-organisms.

Its action is stimulating to the muscular, nervous, vascular, glandular, osseous, and digestive systems upon which it acts directly. It nourishes the mucous membranes of the stomach so that vomiting which is due to grastric irritation is allayed. It causes an increase of the number of the corpuscles of the blood and enhances their vital value by increasing the amount of haemoglobin in the red and nuclein in the white, the leucocytes thus furnished with a rich pabulum are stimulated to activity to cope with any eleminative duty that may be forced upon them. In one word, it covers the whole field of nutritive therapy.

There probably is no disease in which feeding plays so important a role as in phthisis pulmonalis. Here it is not only the quality but the quantity that has to be looked after, and hyperalimentation be it in the form of raw meat, expressed beef juice, fresh blood, cod liver oil, etc., is usually pushed *ad nausium* to the limit.

Another factor that helps to reduce the digestive power of the stomach in these cases is the exhibition of large doses of creosote over great lengths of time, the mucous membrane becoming literally seared and the acid and peptic glands dried up. It is at once patent that a food that is already digested, and which is

soothing to an inflamed mucous membrane, would be most acceptable in a case like this.

I have treated a large number of consumptives, and have tried all sorts of artificial foods as well as the usual natural ones, but have never found anything that gave such wonderful results in the way of nourishment and gain in weight as trophonine.

Out of fifty-three cases that came under my care during the past year nine were given trophonine in conjunction with their normal diet, and in every instance there was a gain in weight and improvement in the physical condition.

Especially in cases where the throat is involved is it of value, when deglutition becomes almost impossible, trophonine can be swallowed because it soothes the inflamed parts as it passes over them.

Trophonine can also be given per rectum and is retained with ease on account of its non-irritating nature.

From the results I obtained in these cases I am convinced that trophonine is the best adjuvant to the patient's regular diet in phthisis.

I here submit the histories of the nine cases mentioned above, a series of clinical pictures that speak more eloquently for trophonine than volumes of nicely worded eulogies.

OBSERVATIONS.

No. 1.—Mr. Horace B. B., age 50; mother died of consumption at 44; one sister died of consumption at the age of 18; three or four years ago had the grippe and bronchitis; since then he has coughed and expectorated a good deal; he has had many hemorrhages and is nervous and impressionable.

There were old pleuritic adhesions at the apex; right lung consolidated at the back for almost its entire length, in front crepitant rales could be heard.

He also had a hypertrophic pharyngitis and enlargement of the sub-maxiliary glands. He was given trophonine in tablespoonful doses three times a day in connection with his other treatment. At the present time, six months after he had taken the first dose of trophonine, he has gained fifteen pounds and is doing nicely.

No. 2.—Mrs. Marie K., aged 28; mother had consumption whom she had been nursing; claims that she was treated for Bright's disease when she was eighteen years old and cured; for the last six years she has been troubled with a pain in the left side which she attributes to a pleurisy; she has also coughed and expectorated a good deal; there is dullness at the apex of the left lung and a slight wheezing sound is to be heard on expiration, the sputum shows the presence of the tubercle bacilli.

After four months she is greatly improved and has gained six pounds. She was given tablespoonful doses of trophonine three times a day.

No. 3.—Mrs. Grace S., aged 21; father died of heart disease; mother living; mother had two or three cousins who died of consumption; seven years ago had a very bad cold on the chest, followed by swelling of the glands of left side of the neck; right lung has probably been affected since as there is a large cavity the size of an egg in the upper lobe; there are old pleuritic adhesions at the base; left lung greatly congested at apex; has had hemorrhages for years, night sweats, fever, cough, and the sputum showed tubercle bacilli.

She was given trophonine in connection with her treatment and gained ten pounds in two months.

No. 4.—Mrs. Ellen K.; age 43; 2 years ago had bronchitis followed by pleurisy on both sides; has coughed and expectorated ever since; has had several hemorrhages; left lung consolidated from base to apex, cavity in upper lobe the size of an egg; right lung, entire upper lobe consolidated; crepitant and sibilant rales could be heard over entire area anteriorly and posteriorly.

She was given trophonine three times a day in tablespoonful doses, and gained 8

pounds the first two weeks, at the end of three months time she had gained 15 pounds.

No. 5.—Mr. Wm. H. S.; aged 41; father and mother both living and in good health; had one brother die of consumption; one sister died of pneumonia at age of 32; about two years ago was taken with hemorrhages; has had night sweats ever since; he is very nervous and impressionable, emaciated and pale; right lung, dullnes of upper lobe; crepitant rales in front and above; there was consolidation of all the rest of the lung; left lung, dullness of upper lobe with a souffle above and in front; there was a pleurisy of at least a year standing on the left side below; he had tubercular laryngitis and pharyngitis.

He was put upon trophonine, but as his case was a very grave one of galloping consumption the waste was so great that he gained but little, still before he commenced to take trophonine he was losing from four to five pounds a week. At the end of five months he had gained six pounds.

No. 6.—Mr. Harry A. P.; age 38; father died at age of 67 of Bright's disease; mother living; mother had two aunts and uncle die of consumption; seven years ago had bronchitis; three years afterward had another attack; nervous and impressionable; right lung, there was dullness on percussion above and to the back; left lung, there was dullness on percussion above and to the back scouffle in front at the region of the large bronchus; sputum showed tubercle bacilli; has had no night sweats or hemorhages but some fever and cough.

He was given trophonine in conjunction with his other remedies and in two months time has gained twelve pounds. Six months afterward all his previous symptoms disappeared and he gained twenty-two pounds.

No. 7.—Miss Hattie B.; aged 15; father and mother living; two sisters died of consumption; she was anaemic, frail, nervous and impressionable, has had several attacks of bronchitis; has not menstruated for five months; right lung, there is dullness on percussion at apex in front; consolidation of the lower lobe to the front and side; sibilant rales to be heard all over; left lung, dullness on percussion in upper and lower lobes, crepitant rales throughout; coughed and expectorated considerably; sputum showed tubercle bacilli.

She had been losing weight rapidly, but as soon as she was put upon trophonine she began to hold her own. At the end of two months she left for the West and I have not heard from her since.

No. 8.—Miss Dorothy D.; aged 38; father died of paralysis; mother died of consumption at age of 65; two brothers died of phthisis, one having general tuberculosis; had pleurisy about a year ago, has coughed and expectorated a great deal; has never had hemorrhages, but has had night sweats and fever; somewhat anemic, poorly nourished, very nervous and hysterical; weighed 120 pounds when she entered; menses irregular; right lung, dullness on percussion at the lower lobe in front and back; left lung, dullness at the apex and a small area at the lower lobe in front and at the side; marked bronchial breathing; microscopic examination of the sputum showed tubercle bacilli, strepto-cocci, and staphylo-cocci, pus, and fibro-elastic tissue.

She was under treatment three months, taking trophonine three times a day, and gained eight pounds in that time.

No. 9.—Mr. J. E. D.; aged 34; father living in good health; mother died at time of change of life; cause unknown. Had one brother die of consumption at age of 26.

Four years ago had appendicitis, at that time had chills, and expectorated considerable. One year ago had sputum examined by Board of Health and tubercle bacilli were found. Has never had hemorrhages but has had night sweats and fever. Had pneumonia about one year and five months ago. He was very nervous and impressionable, also greatly emaciated, weighing 102 pounds. He was put upon trophonine, and in two weeks gained five pounds. He is now under treatment and gaining rapidly.

THE AMERICAN THERAPIST.

A Monthly Record of Modern Therapeutics,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Editorial.

ARSENIC. — Our leading article in this issue comes from Louisville, and includes many interesting and instructive facts and opinions, as contributed by eight physicians, of well-known standing and wide experience in general and special practice, at one of their "Experience Meetings." The readers of the AMERICAN THERAPIST have been favored with similar reports regularly for some years back, and we believe that they have found much valuable information in them.

* * *

OF THE VALUE of arsenic there is no question; it is one of drugs in universal use and of universal utility. The variety of forms in which it can be applied is extensive, so that patients of all kinds can be accomodated with due consideration for their prejudices or idiosyncrasies. Properly used, arsenic may well deserve the enthusiastic rating of Dr. Cartledge, as "the most wonderful drug in the entire Pharmacopeia.

* * *

OF NEW SILVER SALTS there are now many available; beginning with the first introduction of the kind, argentamin, the list includes in order: argonin, protargol, actol and itrol, and albargin. Argentamin has well held its popularity from the start; it differs from the others in being a liquid. Protargol is without doubt the most popular. Albargin, the latest introduction, seems to possess characteristic advantages which may win for it the preference usually bid for by "the latest."

* * *

WE QUOTE "the platform" for treatment, *i. e.*, therapeutics, of Prof. A. Jacobi on another page. It is worth preserving; but better than that, it will profit the reader to procure the entire address, and to read, study and ponder on the homely words of experience and advice tendered by this "teacher of his generation."

* * *

OPODELDOC, Harlem oil, Warburg's tincture, Stokes' bitters, Godfrey's cordial,— these and many other similar old time preparations, originally designed by physicians and gradually grown popular with the laity, are staple "package goods" in drug stores. We quote the *New York Medical Journal's* editorial on Opodeldoc on another page, because the reference must interest the middle-aged practitioner who remembers how often he has met these household compounds in his practice. A history of such preparations, including those growing into the same time-honored reputation within our own day, would make interesting reading—now and in days to come.

* * *

IN THE DAILY press we read every little while of arrests and prosecutions, under authority of local boards of health or commissioners of some sort, for using boric acid, formaldehyde, and similar preservative agents. That these proceedings are usually unjustified is the conviction of many competent observers. Physicians, who ought to be well-informed and who are often asked for opinions on such subjects, can do much to dissipate these prejudices among the laity. The abstract of a report which we reprint on another page, on the influence of these agents on nutrition and tissue-change, contains some patent facts and truths.

A PERFECT, SOFT gelatine capsule is the best form for administering drugs.

Current Literature.

Ichthyol in Deep-seated Inflammation.—W. T. Slevin (*N. Y. Med. Jour.*, March 9, 1901) has obtained excellent results from the following combination of ichthyol and lead iodid:

℞ Ichthyol, lead iodid, of each.. 45 grains;
Ammonium chloride..... 10 "
Petrolatum, to make..... 1 ounce.

To be rubbed thoroughty into the affected part.

For Passive Hepatic Congestions of Cardiac or Pericardiac Origin.—Dr. Bommier (*Nord médical*, July 15th) says that the cardiac tonics, digitalis, caffeine or strophanthus-sparteine, should be employed, or Huchard's pills having the following formula:

℞ Aqueous extract of ergot..60 grains
Powdered squill.....45 "
Calomel.....30 "
Powdered digitalis 15 "

M. Make into forty pills, of which three may be taken daily during thirty days.—*N. Y. Med. Journal.*

Argentamin.—From a report by Bergel (*New Engl. Med. Monthly*) on both the internal and external use of argentamin as a substitute for silver nitrate, *American Medicine* quotes that Bergel has had most satisfactory results. In acute gonorrhea he begins with a 10 per cent. solution as a basis—corresponding to a 1 per cent. solution of silver nitrate—and uses 1 to 400 to 1 to 200 dilutions as an anterior injection. In the later stages instillations of even 1 to 10 with the Guyon syringe are well borne and cause no irritation. For urethral irrigation in gonorrheal cystitis solutions of 1 to 1000 to 1 to 5000 in aq. dest. were commonly employed, while in pharyngeal diseases, particularly of syphilitic origin, 5 to 10 per cent. solutions were efficacious, and in some respects superior to silver nitrate. In suppurative conjunctival diseases instillations of 1 to 2 per cent. solutions 3 to 4 times daily, or brush applications of 5 to 7 per cent. solutions twice daily, were useful. Argentamin is also indicated in acute trachoma, acute follicular catarrh, chronic suppurative trachoma, and blenorrhea neonatorum. *Internally* it may be used with good results in enteritis, phthisical diarrhea and as an injection in catarrh of the large intestine. As to dosage—a teaspoonful to a tablespoonful of a ½ to 1 per cent. solution every 2 or 3 hours is administered either plain or with glycerin.

Discovery of a New Antiseptic.—According to the dispatches in the lay press, an important discovery in the science of antiseptics, upon which Drs. Frederick G. Novy and Paul C. Freer have been working for over a year in their respective laboratories, has just been made public. The new antiseptic is organic acid hyperoxides. In a watery solution five one-thousandths of 1 per cent. of active oxygen derived from the hyperoxides is fatal to all bacteria. The hyperoxide which was used for the experiments is benzozlacital, and this, as was shown by experiments on dogs, can be taken internally in large doses without poisonous effect. The discovery promisss to result in still other developments of importance.—*Cleveland Medical Gazette*, August, 1901.

The Cedron Seed as a Cure for Yellow Fever.—It is so seldom in this age of serum-therapy that we see a new vegetable drug extolled as a sure cure for anything, that we think such an event is specially noteworthy. In a letter in the *Public Health Reports* for July 27, Dr. S. H. Hodgson, of the Marine Hospital Service, praises the virtues of the cedron seed as a cure for yellow fever. Dr. Hodgson writes from Progreso, Mexico. He says that in Central and South America the seed or bean of the cedron is used as a remedy for the stings of insects and the bites of snakes, and acting on this hint he used it in cases of yellow fever. The results were so satisfactory that Dr. Hodgson concluded that the cedron is as true a specific for yellow fever as quinine is for malaria. This is certainly high praise.

Unfortunately, he kept no notes of the cases treated, and consequently his report lacks the precise details of systematic observation that we always desire to see in support of such claims. Dr. Hodgson urges that a careful investigation be made of the action of this drug, and even asks to be transferred to a yellow fever focus so that he may himself make further observations. We should remember that Peruvian bark was a long while in gaining confidence, and we should not be too skeptical in the trial of a remedy which has impressed a sense of its value upon an educated observer.—*Philadelphia Medical Journal.*

Treatment of Variola.—Du Castel (*Journal des Praticiens*, january 5, 1901) recommends in variola at the time of eruption injections of ether, morning and evening; during the day a solution containing 2 to 3 grains of extract of opium is to be given in divided doses. In slight attacks, instead of these large doses the following formula may substituted:

Syrup	4 ounces
Ether, 65%	32 minims
Alcohol, 90%	1½ drams
Extract of opium	¾ grain

Lemoine and Dreyfus-Brisac are convinced of the value of this treatment, and think that the dose of ether may be increased. In some cases 20 drops of the tincture of ferric chlorid will be a useful adjuvant. Caffein is indicated if the heart is weak. Ergot should be employed if there is a marked hemorrhagic tendency. To avoid cicatrices on the skin, especially the face, Talamon recommends the application of the following solution to a small area:

Sublimate, Citric acid	of each 15 grains
Alcohol, 90%	1½ dram
Ether	sufficient to make 2 ounces

Afterward a coating of glycerol of sublimate 1 to 15.

Lemoine uses the following ointment:

Salol	25 grains
Vaseline	5 drams

and subsequently applies this powder:

Talcum, Starch, Salol	equal parts.

—*American Medicine.*

Sodium Salicylate in Diabetes. — Williamson (*British Med. Journal*, No. 2100), after a careful study of 20 cases of diabetes, has become convinced of the value of sodium salicylate in mild or medium cases of this disease, although he does not regard it as a specific, nor is it suitable in all cases. The author begins with ten grains three times daily, increasing to 15 grains 4 or 5 times daily. He prefers the natural preparation, made from oil of wintergreen, to the synthetic product.—*American Medicine.*

The Treatment of Warts.—M. Courtin (*Gaz. Lebel. de Bordeaux*, 1900; *Quarterly Medical Journal*, May) reports cases treated as follows: The skin of the part is carefully disinfected, the base of the wart is transfixed by two needles (previously rendered aseptic) at right angles to each other. A piece of aseptic silk is then tied tightly round the base of the wart below the needles; the tightening of the ligature constricts the wart, forming a pedicle, and an antiseptic powder is dusted on. At the end of eight days the dressing is removed, when the wart, needles, and silk come away, leaving a small simple wound which soon heals.—N. Y. *Med. Journal.*

A Case of Marked Improvement of Elephantiasis Following Subcutaneous Injections of Calomel. — S. D. Schaginian (*Medicinskoie Obosrenie*, April, 1901) reports a case of elephantiasis in a woman 54 years old who also suffered from general obesity, developed during the climacterium. Fourteen injections of a five per cent. solution of calomel in liquid vaseline in the affected limbs brought about a marked improvement, the decrease in the size of the legs amounting in some places to 26 per cent. The injections were made every 3, 6 and 8 days, 0.9 grm. of calomel having been used altogether. No constitutional disturbances were observed; the local reaction, on the other hand, was marked. The patient left before the treatment was completed.—*Phila. Med. Jour.*

The New Era of Therapy.—Prof. A. Jacobi contributed a "heart to heart" talk to the Medical Society of the State of New York, which was published in *American Medicine*, the last—and a most interesting—chapter appearing Aug. 17th, 1901. Concluding this paper, on "Expectant Treatment," Professor Jacobi refers to the saying of Benjamin Franklin, that "no science was good for anything unless it proved beneficient to mankind," and continues: In that sense every progress in the science of medicine contributed to the art of healing and aided in helping to create the era of therapy in which we now live.

To benefit a few amongst you whose professional career may not yet have attained or firmly planted its aim or ideal, I wrote these few pages both as a review and as a platform.

That platform should be:

In order to obtain indications for treatment, make a diagnosis. That art is becoming both more accessible and, through honest and hard work, more easy with the aid of modern methods.

Remember that most diseases have, indeed, a tendency to spontaneous recovery, but also that recovery is not always complete and that invalidism should not be invited through neglect of treatment.

Complications are possible as long as an illness lasts, and with every day cut short, the dangers of an otherwise typical disease are diminished.

The experience of old men in the profession who claim they employ less drugs with advancing years, means sometimes either an inability to master new methods of diagnosis, or the knowledge of new medicines of physical remedies.

There is no one treatment for a disease adapted to every patient. There is no such thing as a uniform treatment for pneumonia, or for the typhoid fever, or, even in spite of antitoxins, for diphtheria or tetanus.

We should not try to treat the name of an illness, but the patient.

Opodeldoc.—The editor of the New York *Medical Journal* (July 6, 1901) discurses extensively on this old-fashioned popular preparation:

Old Dr. James, in his bulky *Medicinal Dictionary*, gives the following as the formula of the plaster to which Paracelsus seems to have given the quasi-Oriental name of opodeldoc: A plaster made by melting together two ounces of bdellium, ammoniacum, galbanum, sagapenum, and opopanax, adding a pound and a half of Strassburg turpentine, four ounces of bay oil, and two ounces of amber, and stirring well together over a gentle fire; or a pound of litharge, a pound and a half of calamine, two pounds of olive oil, and a pound of linseed oil, and, after mixing with the preceding, adding a pound each of yellow wax and colophony, boiling again and stirring till all are incorporated, and adding gradually an ounce each of astringent saffron of Mars, loadstone, colcothar, olibanum, myrrh, amber, mastich, sarcocolla, dragon's blood, and camphor, and two ounces of round birthwort root, letting the whole stand over a slow fire till the proper consistence is acquired.

Thus we see that, even in Dr. James's time, the formula was not constant. Indeed, as we are told by Dr. Paul Fabre (*Janus*, May), there were in old times the opodeldoc of Wurtzius, that of Mindererus, that of Nuremberg, and that of Jungken. Like many of the other terms coined by that prince of fakirs, Paracelsus, opodeldoc took the fancy of the multitude, and, although the plaster long ago lapsed into oblivion, a liniment of the same name, essentially nothing more than camphorated soap liniment, still holds a high place in the esteem of thousands of good old dames the world over, and in so recent a work as Raige-Delorme and Dechambre's *Dictionnaire encyclopédique des sciences médicales* we find the formula of baume opodeldoch, or baume opodeldoch liquide, namely, a solution of fifty parts of white soap and fifteen of camphor in five hundred of alcohol, to which are added

four of oil of thyme, eight of oil of rosemary, and thirty of ammonia water.

In pharmacy, as in the other arts, the tendency of the times is toward simplicity, and the linimentum saponatocamphoratum of several of the European pharmacopœias amply takes the place of the old opodeldoc liniment; so, indeed, does the linimentum saponis of the United States and British pharmacopœias, of still simpler constitution. But laymen are apt to spurn simplicity in medicine, preferring to look upon the science as occult; consequently, in prescribing soap liniment it is judicious to speak of it as opodeldoc.

The Influence of Boric Acid, Borax and Formaldehyde on Nutrition and Tissue-Change in Children. – The fact that scientific tests prove so conclusively that a popular impression is wrong, makes the following editorial from the *Phila. Medical Journal*, July 6th, 1901, of special interest to medical men, who are so often consulted on the subject by their fearful patients:

The extensive use of these agents in food, in spite of the energetic efforts of health authorties, makes any information concerning their physiological actions of much interest. The data in this field have been accumulated by many observers and in several ways. Some have experimented merely in test-tubes and flasks studying especially the influence on digestive processes; others have made prolonged studies of the effect on the lower animals when fed with articles containing notable amounts of the preservatives. Both these methods are subject to criticism from the clinical point of view. It is not safe to trust much to negative results obtained in the chemical or physiological laboratory.

The human organism is very sensitive and will be unfavorably influenced by conditions which will not disturb the digestion of a starch solution by diastase or the functions of a small animal. So far as these classes of experiments may be taken as a guide, it appears that neither boric acid, formaldehyde, nor borax exerts any marked influence on ordinary digestion or nutrition.

Important contributions to the subject are found in papers recently published by F. W. Tunnicliffe and O. Rosenheim (*Journal of Hygiene*, April, 1901; *Centralbl. f. Physiolog.*, April 27th, 1901), who have made experiments by feeding apparently healthy and delicate infants with articles containing these preservatives and making careful analytical and other observations as to the effects on nutrition and metabolism. They arrive at the following conclusions, which are not likely to strenghten the hands of those who wish to restrict the use of such agents.

Boric acid in small doses up to one gram per day produces in healthy or delicate children no change in proteid metabolism and no appreciable influence on the assimilation of fat. The body weight is increased. Similarly, borax in 1.5 grams doses per day produces no unfavorable influence on proteid metabolism or assimilation of fat, and the body weight is increased. The amount of dry feces is slightly increased with borax, but not with boric acid. A mixture of boric acid and borax (which has been found to be a better preservative than either alone) is quickly eliminated and does not act unfavorably.

Concerning formaldehyde, the observers find as follows: Formaldehyde added to milk in the proportion of 1 to 5000, or to the entire aliment in proportion of 1 to 9000, has no appreciable influence upon the more important phases of healthy children, but with debilitated children some interference is shown. With these, the quantity of urine and dry feces is increased. The excretion of lecithin is decreased.

In no case was any unfavorable influence upon the general health of the children noticed. Neither borax, boric acid nor formaldehyde exerted any antiseptic action upon the intestinal contents. The proportion of formaldehyde used in the milk was considerably in excess of the amount required for ordinary preservation.

Therapeutic Notes.

For Infantile Eczema.—Dry, vesicular and papular. Leistikow recommends:

℞ Zinci oxidi
Amyli
Adipis lanae āā 5
Petrolati.. 10
Hydrarg. oxid. flav. 0.25 to 0.50
M. ft. pasta.—*Medical Record.*

Liniment for Sprains.—

℞ Ol. terebinthinae 60
Acidi acetici 60
Ol. lavendulae 5
Vitelli ovi 500
Aq. dest. q. s. ad 500
M. Sig.—Apply two or three times daily.
—*Amer. Jour. Surgery and Gynecology.*

Rheumatism. — Dr. M. G. Price, of Mosheim, Tenn., recommends the following in the *Medical Summary*:

℞ Colchicine 1/24 grain
Sodium arsen. 1/57 grain
Lithium benz. 1/3 grain

This will not disappoint if given to free catharsis.—*Medical Bulletin.*

For Parotitis (Mumps).—In children the following combination renders good service in treatment of the febrile stage:

℞ Liq. ammonii acetatis ℥ ss
Spir. etheris nitrosi ℥ ii
Aq. menthae pip. q. s. ad ℥ iii
M. S.—One teaspoonful every two or three hours for a child over five years of age,
—*Journal A. M. A.*

For Influenza in Children.—

℞ Sodium benzoate } of each 30 grs.
Antipyrine }
Camph. tinct. opium 4 drs.
Sparteine sulphate 2 grs.
Pure ext. licorice 1 dr.
Syrup tolu to make 2 ozs.
Shake well. Teaspoonful four times a day for a child six to eight years old.
—*Merck's Archives*, Feb., 1901.

Intestinal Antiseptic.—As an intestinal antiseptic in typhoid fever, the following has been recommended:

℞ Acidi thymici }
Guaiacol carbonatis ... } of each ℥ iss
Saponis (medicinalis) .. }
M. et ft. pil. No. xxx.
Sig.—One pill every four hours.
—*Journal of the A. M. A.*

Cough in Phthisis.—Daly (*N. Y. Med. Jour.*, Jan. 5, 1901) recommends for the hard, dry cough of phthisis the following combination:

℞ Camphor 2 grains;
Heroin 1/12 grain;
Creosote 1 drop.

To be made into a pill with a proper vehicle. The camphor does away in large part with the general depression.

Treatment of Infantile Eczema.—Kistler (*Le Médecine Moderne*, Jan. 30, 1901) employs the following ointment to relieve the itching of infantile eczema:

℞ Salicylic acid 15 grains;
Bismuth subnitrat 4 drams;
Powdered starch 1½ drams;
Cold cream 2 ounces.

Calomel, in the dose of 1 or 2 grains, is indicated from 1 to 3 times a week, to aid in the elimination of pathologic products.

Phenol in Dermatology.—Jay F. Schamberg, in the *Therapeutic Gazette* of June 15, 1901, says that carbolic acid has so long been employed as a topical application that internally it has fallen into disuse. In psoriasis it is an excellent remedy and can be administered in pill form for long periods. The dose may vary from five to ten drops, the latter considerable quantity very rarely causing irritation of the kidneys. Carbolic acid internally is especially useful in chronic psoriasis where the patches are not much infiltrated. If administered in solution, the following prescription is useful:

℞ Acidi carbolici ℥ iij
Glycerini f℥ j
Aquae destill. f℥ v
S.: One drachm in a large wineglass of water, before meals.

Carbolic acid is useful in pruritus, especially of the generalized form. It is given internally in from one to four-grain doses dissolved in sherry wine and glycerin. It is possible that it acts in pruritus by being eliminated through the sweat glands. Its antifermentative and antiseptic action in the intestines may overcome certain forms of autointoxication to which pruritus is due.—*Medicine.*

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Leading Articles.

*THE RELATION OF INTERSTITIAL NEPHRITIS AND THE HEART.**

By HUGH N. LEAVELL, M.D., Louisville, Ky.

The events occurring in the cardio-vascular system, during the progress of chronic interstitial nephritis, are recognized as constituting an integral part of the pathologic incidence of this form of Bright's disease. The changes taking place may be briefly stated as: (1) Sclerosis of the arterial system; and (2) hypertrophy of the heart.

As a result of the renal lesion, and consequent imperfect depuration of the blood, or conditions which coexist although not necessarily the outcome of the renal changes, an abnormally high vascular tension becomes established. Sooner or later the walls of the arterioles become thickened and inelastic, resisting the onward passage of blood, thus imposing an additional burden on the left ventricle which undergoes hypertrophy to successfully cope with the high peripheral resistance. Up to a certain point the inevitable hypertrophy of the heart is compensatory, or an "accommodation enlargement," and is fortuitous; so long as it compensates the renal lesion its purposes are good.

The arterial changes are progressive and the increased blood pressure permanent. The hypertrophied muscular tissue is prone to degenerative changes, shows a greater tendency to exhaustion and weakness than the normal heart tissues, and it is but a question of time until increasing impairment of nutrition of the myocardium, with constantly growing peripheral resistance, results in failure of compensation and dilatation of the hypertrophied ventricles. This adjustment of the cardio-vascular system to the renal lesion tends to obviate the main danger—the retention of uremic toxines. The debt which the kidneys owe the heart is amply demonstrated when cardiac compensation fails, and the greatly diminished quantity of urine, increasing albuminuria and rapidly developing uremia leave no doubt as to what organ has conserved the patient's life.

Kidneys which may do well under increased blood pressure prove miserably inadequate when such support is removed. Therefore, it may be stated that the condition of the heart is the best gauge of the disease.

The clinical history of the termination of the majority of cases is that sufficient urine was excreted to maintain life, and that the direct cause of death came elsewhere than from the kidneys—usually the heart. During the early stages symptoms produced by the cardiac hypertrophy may not be sufficiently pronounced to even awaken the suspicion of the patient. With the progress of the malady, the heart resenting the increased load imposed, evidences of embarrassment of the heart become more manifest, and giddiness, dyspnea on exertion, cardiac discomfort, headache, and palpitation give to the clinical picture the "cardiac" aspect it seldom loses during subsequent progress. These symptoms are at first transitory, but with the onward march of the disease signs of impaired circulation become more

* Abstracted from Proceedings of the Louisville Clinical Society, for exclusive publication in the AMERICAN THERAPIST.

permanent and distinct, and during the last few weeks dyspnea is constant, dropsy and uremic symptoms supervene, the pulse loses somewhat in tension, and the heart sounds become less distinct and accentuated. The pulse, except in rare instances, never loses that element of tension, although it may be modified by increasing weakness of the heart.

In the treatment of chronic interstitial nephritis we have to deal with more than one set of organs — the kidneys. The damage done the kidneys is irremediable, and to favorably influence the progress of the disease we should assist nature in her efforts at conservative systemic compensation. Unaided the preservative adjustment in the circulatory organs, which is nature's compromise with the erring kidneys, is sufficient to extend the course of the disease over many years, and with such perfect accomodation that it may be only through some untoward circumstance that the real condition is discovered.

We must employ all means to support the cardiac muscle and promote the equanimity of its nervous mechanism, and when compensation fails we must strive to restore, if possible, the damaged heart wall.

The conditions which confront us are thickened and inelastic arteries, which are constantly subjected to the strain of a heightened tension, and an hypertrophied and sensitive heart muscle. Thus the patient is exposed to the risk of rupture of the degenerated vessels on one hand, and failure of the hypertrophied heart on the other.

In the management of this disease it would seem wise to abstain from active intervention so long as no subjective symptoms are present. Increase of tension in the arterial system beyond the bounds of safety soon becomes manifest in dizziness, ringing in the ears, headache, disturbed cardiac action, unusual fulness of the vessels, occasionally epistaxis, and it may be temporary amblyopia.

The first sign of a flagging heart is noted in the pulse which loses some of its hardness and becomes irregular and frequent. Additional signs are dyspnea, post-sternal weight and discomfort, cough on exertion or recumbency, and some diminution in the volume of urine.

We should in the early stages of nephritis endeavor to insure permanency of compensation. If the full co-operation of the patient can be secured, much may be done for his future health. We should not risk misunderstanding by lack of explicitness of direction, or by trusting important details to his memory, but furnish him with full written particulars of the course to be pursued.

At the earliest signs of cardiac embarrassment some restriction in activity should be insisted upon, and when compensation seems threatened, or has already given away, absolute rest in bed should be enforced. It should be remembered, however, that beneficial as rest may be to tide over a period of wavering compensation, prolonged bodily inactivity is undesirable and may work positive harm by impairing nutrition, thus hastening degenerative changes in the cardiac walls. During the period of rest massage and passive movements may do much to obviate undesirable results.

The greatest importance attaches to sustaining the patient's mental condition, and regular sleep—one of the best heart tonics—should be secured. Chloretone, paraldehyde, trional and sulphonal may serve excellent purposes in this direction. Chloral is frequently a dangerous cardiac depressant, and opium is bad for the kidneys.

The medicinal measures which we can bring to bear upon the heart during the existence of its compensation are limited to the vaso-dilators. The effect of these remedies is largely mechanical. By dilating the capillaries, lowering peripheral resistance, diminishing the work of the heart, and allowing freer passage of blood through the vessels, nutrition is improved,

excess of tension in the arterial system is overcome, and relief to an overburdend heart may be thus obtained.

To relieve alarming symptoms and to produce a decided beneficial effect upon blood pressure, no measure is so useful as free catharsis. Selecting a cathartic for this purpose is not a matter of indifference. Some preparation of mercury should be employed, as from it more decided benefit can be derived than from larger doses of other purgatives.

The vaso-dilators most useful in controlling arterial tension are the nitrites and iodides. To meet emergencies amyl nitrite by inhalation may be employed, but its effect is too ephemeral to admit of its continuous use, and nitroglycerine is usually the drug of choice. Nitroglycerine is very diffusible, and within a few minutes its effects becomes apparent, but at the end of three hours arterial tension resumes its usual degree. Therefore, a longer period than three hours should not be allowed to elapse between doses is a continuous effect is desired.

Judged from effects upon the arterial tension, when administered for a considerable period, the iodides may be considered valuable for relieving the overloaded circulation, and they may also tend to restrain hyperplasis of the kidneys. The most appropriate forms for administration are sodium and potassium iodides, in from five to ten grain doses given well diluted one hour after meals. Mercury protoiodide seems occasionally to render very happy service in cases marked by a bilious habit with coated tongue and sluggish liver. It is undesirable to give a prolonged course of mercury in nephritis.

The heart tonics of the digitalis group should never be used during the stage of cardiac hypertrophy. Digitalis and its congeners are only admissible when there is indication of failing compensation. In employing digitalis, its vaso-constrictor action must be borne in mind, and provided against, or the peripheral resistance may be dangerously augmented. This is best accomplished by the simultaneous administration of a vaso-dilator. A good practice is to give the vaso-dilator about one hour after the digitalis. The latter is slowly absorbed, while the vaso-dilators, are, without exception, quickly diffusible, and by this arrangement of administration the maximum effect of each falls together and control of tension is secured.

Strophanthus may be advantageously substituted for digitalis when the pulse tension is high. Its efficacy as a heart tonic is established, and it lacks the arterial action of digitalis. It must, however, be used with caution in advanced degeneration of the myocardium. If digitalis and strophanthus fail to elicit response from the failing heart, the outlook is indeed grave and recourse to other measures holds out small prospect.

Caffeine and theobromine will always be of the utmost importance as adjuvants to any plan of treatment.

In the employment of the measures referred to it may be stated that digitalis and the heart tonics should in all cases be reserved for a failing heart, while the vaso-dilators may be used throughout, first as conservatives of the heart by modifying peripheral resistance, and afterward as guards to the action of the heart tonics.

Although gymnastic exercises are but rarely permissible in the weak heart of interstitial nephritis, massage and passive movements are much more widely applicable. They increase the circulation of lymph within the tissues and determine to the muscles a larger supply of blood, thus stimulating nutrition and affording mechanical relief to the overloaded heart. The employment of these measures is accompanied primarily by a slight, transient rise in blood pressure, which is soon followed by a fall in tension, less extreme, and not so long sustained as that following resistant exercises. They furnish a valuable means of obviating circulatory stagnation and malnutrition of prolonged and enforced rest, but too much must not be expected of them. The very nature of

the factors which bring about the hypertrophied heart of interstitial nephritis preclude the possibility of great or permanent results from any or every means that we can bring to bear. Once dilatation has taken place the outlook is a dark one.

In the treatment of chronic nephritis we should watch the heart and pulse. Sooner or later the morbid process must necessarily end in death, but this termination can be longest postponed, the patient's interests can best be served and his condition most securely palliated by placing the heart upon a therapeutic parity with the kidneys.

DISCUSSION.

Dr. Carl Weidner.—The essayist has given us about everything there is to be said in explanation of the cardiac hypertrophy in this form of nephritis. There seem to be two factors, first the irritation of certain toxic substances, and second the changes in the blood vessels causing increased peripheral resistance, for we do not have the same condition in parenchymatous nephritis. There is a general thickening of the walls of the arteries and capillaries, with increased tension. Thickening is particularly true in the kidney, but in most cases there is a general arterio-sclerosis which must be due to the conditions mentioned.

I endorse everything said about the pathology of the disease and the therapy. Whenever the heart begins to show signs of defective compensation, increase in weakness, dilatation, etc., the end is not far off. Digitalis in these cases is indicated. It is one of our best means to bridge the patient over the dangerous period, preventing uremic attacks, etc.

Diet is an important factor. I have seen patients where the disease seemed to be on the point of terminating fatally, and was able to carry them over for a long time, placing them on a plain diet of farinaceous substances, leaving off alcoholic stimulants and meats. Milk and buttermilk should constitute the major part of the diet in these cases.

Dr. T. P. Satterwhite. —I am a little afraid of digitalis, and in the class of cases under consideration I use strychnine and nitroglycerine. With these two agents I can regulate the heart much better than I can with digitalis.

Dr. Wm. Cheatham.—The essayist made no distinction between the pathologic condition of the capillaries and larger arteries. The change in the capillaries is an arteriosclerosis, and in the larger vessels it is an hypertrophy; the pathological condition is different. In the capillaries new tissue is formed, and in the larger vessels there is an increase of all normal tissues of the walls of the vessels.

No reference was made to the eye symptoms, except that in some cases, during the early stages, there is a temporary amblyopia from irritation about the optic tract. There are other well recognized changes which occur in the retina. There is a marked neuro-retinitis, and changes occur here sooner than in other parts of the body because the collateral circulation of the retina is so poor.

The opthalmoscope is of material assistance not only in diagnosis, but also in arriving at a prognosis.

Dr. J. W. Irwin. —The essayist has given us a resumè of the pathological condition of the heart, and of the force that propels the blood through the larger and smaller vessels in interstitial nephritis, but he has not dwelt upon the causes of this disease. His paper would have been more complete if he had done that, as by so doing he would have carried us up to date, touching the various tissues that are affected at the same time we have interstitial nephritis. This disease, as its name implies, is an inflammation between the tubules of the kidney. The mind seems to concentrate itself upon disease of the kidneys particularly, and upon the part the heart takes in this disease. We lose sight of the fact that the entire capillary system first becomes affected, for the reason that the kidneys are involved in disease which sooner or later must terminate the life of the patient.

Let us take a cursory view of the conditions which exist throughout the whole capillary system and we find that the disturbance is not confined to the kidneys. It involves the liver, the heart and the whole tissue of the body where nutritional changes are taking place. If the modern view of interstitial nephritis may be regarded as true, with any degree of certainty, we find that it begins in capillary obstruction, and this capillary obstruction is brought about by various causes. Certain kinds of food, for instance, meat, the use of large quantities of alcoholic stimulants, that inordinate thing which we sometimes meet with called gluttony, all tend largely toward producing this disease. We recognize that patients with interstitial nephritis live longer than with any other form of Bright's disease. The microscope often reveals nothing on account of this disease but hyaline casts, no granular and no blood casts, and no epithelium.

If we accept the modern view of the cause of this capillary stasis, throughout the system, we have authority for saying it is due to excess of uric acid, for Haig has given us the results of observations in his own person, and has collected a number of cases from hospital and private practice, which go to show that capillary stasis we have to deal with bradycardia, a slowing of the pulse, and at the same time an increased amount of arterial tension which is necessary to carry the blood through the various tissues. In capillary stasis all the organs of the body suffer, because the capillary system is all obstructed in the same way.

This view throws some additional light upon what we formerly knew about the disease of the kidneys; it also throws some additional light upon the cause of the engorgement of the brain, the eye, the liver, and also the state of the blood vessels, etc.

Doctor Cheatham mentioned an important point in regard to the pathology, touching the condition of the larger and the smaller blood vessels. If this capillary stasis slows the action of the heart and increases its power by reason of the bradycardia, the muscles of the heart must enlarge in order to force the blood throughout the capillary system, for the main physiological force is the *vis a tergo*. As the blacksmith's arm enlarges from use, so must the heart enlarge when capillary stasis exists. Whether it be due primarily to the excessive use of alcoholic stimulants or to an excess of effete products retained in the tissues, it matters not.

Gluttony conduces to disease of the kidneys eight times out of ten, not to interstitial nephritis so often as the excessive use of alcohol does, but to other forms of Bright's disease. Here we have to deal with capillary stasis and an excess of uric acid in the tissues. When uric acid is present one part to thirty of urea, we have what is said to be the normal amount, but when we find six parts of uric acid to thirty of urea, capillary stasis is said to occur; this has been shown by experiment. Therefore, this condition of the system being present it conduces not alone to disease of the kidneys but to disorders of every organ of the body more or less. If we diminish this capillary pressure by any means, as by the application of heat, the Turkish bath, the withdrawal of nitrogenous foods and alcoholic stimulants, and insist upon a vegetable and milk diet, we diminish the amount of uric acid in the system; we increase the action of the heart and force blood through the capillaries and thus increase the amount of waste products and the amount of water passing through the kidneys. Then we have for the time being relieved our patient.

This is new light thrown upon the subject principally by Haig, who has given us new ideas as to the relation of capillary stasis and uric acid in the system.

So far as the action of digitalis is concerned: After capillary stasis is relieved there can be no objection to its use in the treatment of this disease. No matter

about the hypertrophy for the digitalis helps do what the heart is already doing, that is gaining force. It is enlarged and its muscles are growing stronger so as to force the blood through the obstructed capillaries. Digitalis acts not only upon the heart but all along the course of the blood vessels.

Dr. S. G. Dabney.—I would like to call attention to one point that seems *a propos:* Patients are occasionally brought to us for obstruction about the air passages, who are really suffering from heart or kidney trouble. I had an illustration of this not long ago. A child was brought to me by her mother to have an enlarged tonsil or an adenoid removed. She mentioned that the child had some shortness of breath, that she was restless at night, etc., symptoms which I hardly thought were attributable to local obstruction about the nose. I asked that the child's heart and urine be examined, and it was found that she had a nephritis. Some of the deaths which occur from chloroform or other anesthetics in operations for adenoids may possibly be cases in which the operator has not fully investigated the heart and kidneys, assuming that the symptoms are entirely due to the local trouble.

In regard to the eye symptoms of nephritis: Statistics are exceedingly hard to get as to the frequency of retinal involvement, partly at least because it is not customary to examine the eyes of a great many of the patients who have interstitial nephritis, unless they complain of failing vision. So far as statistics can be obtained they seem to show that fifteen to twenty-five per cent. of cases of inter stitial nephritis show some retinal involvement. Perhaps if a larger number of cases were examined, a larger percentage would be discovered.

I would hardly suppose that the transient amblyopia, that occurs in the early stages of the disease, was due to an exudate about the optic nerve, I am more inclined to think it is due to some influence upon the nerve centers of the cerebrum.

Dr. Geo. B. Young.— The diagnosis of interstitial nephritis has not been touched upon. I desire to express myself as to the utter inefficiency of urinary examinations as ordinarily made. I had occasion during the past year to follow several cases for months, and in the first specimens of urine, while by chemical examination I could find no albumen, I was satisfied from the character of the urine, estimation of urea, specific gravity, etc., that the patient had interstitial nephritis. I made repeated examinations of the twenty-four hour urine and found that I had all kinds of results. I then went into the literature as extensively as I could in order to determine what was the normal specific gravity of urine, and what was the normal excretion of ursa, and found that all authorities expressed themselves differently. I undertook then to estimate the amount of urea excreted with the patient on diet. I found that the excretion varied, *pari passu*, with the amount of nitrogenous food ingested, that is, when nitrogenous food was entirely withdrawn there would be a much smaller amount of urea excreted, and when meats, etc., were allowed the quantity of urea would be largely increased. So I became satisfied that there was no trouble with the kidneys, that the symptoms were probably due to the patient's impaired nervous condition, lack of exercise, etc., because without any drug treatment recovery took place.

I am satisfied that the text book statements of what you ought diagnose from what you find in the urine are entirely erroneous. Where there is no other symptom except something to call attention to to the urine, the mere finding of a low specific gravity, or variation in the amount of urea excreted does not necessarily mean anything, and further and repeated examinations of the patient and urine should be made.

Dr. W. H. Wathen.—Some of the mem-

bers are probably mistaken in the idea that only the small vessels, or capillaries, are involved in the degenerative changes known as arterio-sclerosis. I think it will be found that even the large vessels are involved, and as a result people sometimes have obstruction terminating in gangrene of the extremities, or rupture of vessels and hemorrhage into the brain because of thickening of the coats of the vessels and narrowing of their calibre, thus in a degree destroying the normal tissue of the vessels. The heart, it is true, does not participate in the degenerative changes, but becomes hypertrophied in rather a normal way to accomplish the increased labor thrown upon it.

Interstitial nephritis is evidently the result of obstruction, possibly plus a poisoned condition of the blood because of imperfect circulation due to contracted capillaries. It is not only the retention in the system of uric acid, but it is the retention of all the poisonous elements that are excreted through the kidneys which causes injury to the system and shortens life.

The indication for treatment is easily understood, but the results are often not what we would desire. If it is possible we ought to give such agents as will increase the capacity of the capillaries, and increase the force of the heart, but there is no remedy that can constantly dilate the capillaries without having an injurious effect upon the system. We cannot continue such remedies as nitroglycerine without soon having deleterious effects of the drug, therefore this agent is only of use in extreme cases where it may be employed with some degree of benefit. We can use atropine more constantly in cases of this kind.

While I have not seen it suggested, from a physiological point of view, the supra renal extracts might be used in such cases because they have a marked effect upon the heart's action. A short time after administration of supra renal extract the face becomes flushed, which would indicate that the capillaries are dilated either from pressure or some physiological action of the drug.

I would not give digitalis in interstitial nephritis because of its action in contracting the capillaries. In thirty years' practice I have never thought that digitalis had any effect upon the action of the heart. I would give strychnine in large and repeated doses in all stages of the disease. I think this is the best remedy we have, and absolutely the only remedy that acts as a direct stimulant and tonic to the nerve and muscle tissue of the heart. I cannot say what the results would be, but it would appear that such remedies as the protoiodide of mercury would be indicated.

Dr. Wm. Cheatham. — Doctor Irwin's views in regard to interstitial nephritis are probably the correct ones. I think the primary changes are in the capillaries, the heart and kidney changes coming on secondarily.

The pathological changes, as I understand them, in the small vessels and in the large vessels are entirely different. In the small vessels, the arterioles or capillaries, there is new tissue thrown out, and in the larger vessels there is a true hypertrophy of the tissue that goes to make up the vessel walls.

Concerning the statements made by Dr. Young: I have seen two or three cases where the patients died within six or eight months after examination of the eyes with absolutely no derivatives in the urine; in those cases the opthalmoscope showed marked neuro-retinal changes. In some cases no renal derivatives can be discovered for two or three months after characteristic changes are detected in the eyes. That is one of the difficulties in this form of Bright's disease.

Dr. H. N. Leavell. — I am glad the members valued the paper highly enough to discuss it, and fully appreciate everything that has been said.

Doctor Irwin has brought out a good point in regard to other portions of the system—rather than kidneys—being affected primarily. This is perhaps the cor-

rect idea, but the renal condition becomes more serious because the kidneys are the principal eliminating organs of the body. I cannot agree with him in regard to the administration of digitalis during hypertrophy of the heart; we should leave the heart alone as long as we can, and rather than assisting nature, as he seems to infer, I believe the converse would be true; we would increase hypertrophy and promote dilatation on account of two much stimulation, and tend to diminish nutrition in this way.

In regard to the administration of anesthetics in these cases: Chloroform is the only anesthetic to be administered, and even this should not be given to a patient with interstitial nephritis unless an operation is imperatively demanded. But in parenchymatous nephritis, superinduced by diphtheria or scarlet fever, or where we have throat conditions demanding relief, like adenoid growths, requiring only a short time for operation, if the heart muscle is still in good condition I can see no reason why we should not unhesitatingly administer chloroform

I think the point brought out by Doctor Cheatham in regard to arterio-sclerosis is merely one of degree rather than difference, in that the arteries have a greater amount of tissue to be involved, while the capillaries have but one coat. The change is the same in both instances, except in regard to the amount of tissue to be involved.

Tinea Versicolor.—Aronstam (*Medical Standard*, xxiv, No. 4) recommends the following ointment for tinea versicolor:

℞ Ichthyol 1 dram
Sodium hyposulphite 25 grains
Wool-fat to make 1 ounce
Sig.—Apply twice daily.

The bowels should be regulated with cascara sagrada. The diet should consist of abundant albuminous foods, and restriction of carbohydrates. General tonics, outdoor exercise and frequent baths should also be ordered.—*Am. Med.*

*THE USE AND ABUSE OF ECBOLICS.**

By J. Wesley Bovee, M.D., Washington, D. C.

Ecbolic, a word derived from the Greek, meaning to throw out, is a remedial agent which, by exciting uterine contractions, causes its contents to be expelled. This applies as well to foreign bodies and new growths, as polypi and fibromata, as to products of conception. Practically this term is applied to remedies used to empty the pregnant uterus.

The principal ecbolics are ergot, quinine, rue, savin, tansy, pennyroyal, cotton root, oxalic acid and turpentine. Of these ergot is the most powerful in its action, but many of the others, like cotton root, pennyroyal and cantharides, are employed in infusions by the ignorant people, and unfortunately, by some with attributes less commendable, as ecbolics. Oxalic acid has strong ecbolic influence, according to Talley (*Med. News*, 1894, LXIV, 12) and Bloom. The use of this drug as an emmenagogne has been large, and both Talley and Bloom employed it by mistake in early pregnancy, with abortion as the result. Bloom says it is the surest and safest emmenagogue. Talley, differing with Bloom, reports toxic symptoms from the three half grain doses of it given four hours apart. These were vomiting, epigastric pain, weak and rapid pulse, cold extremities, great prostration with eruption and itching on the trunk, arms, and legs like urticaria, and which lasted seven days. Carter (*Chicago Med. Journal and Examiner*, 1888, LVI, 336) says the American mistletoe produces more prompt and sure u erine contractions than ergot. Even actea racemosa and cimicifuga have been employed for centuries by the Indians and settlers as ecbolics, and Ringer says the action of actea racemosa is similar to ergot, except it does not prolong contractile movements.

* Read at a meeting of the Medical and Surgical Society of the District of Columbia, May 2, 1901.—From the *Virginia Medical Semi-Monthly*, June 7, 1901.

Manganese dioxide will act similarly, cases of abortion from its use being on record. Schwarzwælder (*Berl. klin. Woch.*, 2, 18, 1891) mentions the action of lead as an ecbolic. He says in Germany a preparation called "lead white," used for polishing silver, is greatly used for criminal abortion. In numerous instances he has seen alarming symptoms from its use. He says lead plaster for this purpose is used among the ignorant classes in Berlin. This action of quinine is probably much weaker than is generally believed. That it has the power of strengthening uterine contractions cannot be doubted. But that it can begin them seems doubtful.

Indications and Contraindications. — I wish it were possible to be able to sweep this class from the armamentarium medicorum, as probably the world would be better without it. It has its place, but the abuse of these remedies more than counterbalances the benefit to be derived from them. The uses are: (1) The expulsion of foreign bodies and new growths from the uterus; (2) the expulsion of products of interrupted pregnancies: and (3) the therapeutic emptying of the normally pregnant uterus.

It occasionally happens that fibromata and other growths form in the inner portion of the uterine wall, and the organ shows an intolerance for them. In such cases ecbolics markedly assist in expelling them into the vagina. Foreign bodies with no sharp edges may be disposed of in the same manner. However, should sharp edges exist on those occasionally found in the uterus, and whose presence there is shrouded with mystery, great caution is needed, and the uterine contraction incident to the employment of ecbolics might be sufficient to cause great laceration, and possibly puncture of walls of the uterus.

Ecbolics are also used for expulsion of the remainder of incomplete abortions. Sometimes this method of dealing with such conditions is used with success, usually it fails. Ergot, the most powerful and reliable of all this class of remedies, is harmful, as it tends to produce spasmodic contractions of the uterus, and particularly to lessen the size of the outlet by contracting the cervix, and thus defeating the desired result.

Very rarely it becomes necessary to empty the uterus in the early months of pregnancy from conditions of the woman dependent largely upon the existence of pregnancy. In such cases these remedies have been used with good results. Would that less promptness to resort to such treatment existed, as I believe in a large majority of cases in which this indication is supposed to exist a little more patience would avert such necessity. It is doubtful, if in skilled hands, a systematic instrumental emptying of the uterus is not preferable to the employment of drugs for this purpose. A careful, rapid dilatation of the cervix and emptying of the uterus by forceps and curette under aseptic or antiseptic precautions should be the most successful plan. Unfortunately this is the most abused class of remedies in the whole category of therapeutic remedies, owing to the wide practice of criminal abortion. The daily press teams with cleverly written advertisements of nostrums containing one or more of these agents. It would seem hardly necessary to warn the profession against these agents when used in small doses as emmenagogues during the existence of pregnancy. But the consultant sees many cases in which an apparent lack of discrimination in this direction has been practiced. Nor has it in every instance been a secret pleasure to the patient, for most women have not become victims of the teaching and pleadings of the so-called advanced thought. They have still a pride and pleasure in maternity. In such cases the carelessnes of the physician is not easily forgotten by the patient.

No direct emmenagogue can be safely administered during pregnancy, nor should it be so employed. Every remedy that will directly produce or increase the menstrual flow will act as an ecbolic or abor-

tifacient. The very fact of a flow of blood from the endometrium of the gravid uterus is presumptive evidence of the separation of the decidua, which is quite likely to end in partial or complete emptying of the uterus. I regret, however, that this warning can be of great profit to some unthinking, not unscrupulous, members of our profession. A hot foot bath or a sitz bath at the time of the expected menstrual period is thought by some to be a differential test of early pregnancy. If the flow appears no pregnancy is thought to have existed, and *vice versa*. We can readily appreciate the fallacy of such reasoning when we remember the extreme caution necessary to overcome the abortion habit. Many an early pregnancy is interrupted by warm vaginal douches, especially if forcibly emyloyed. When such simple remedies have such deleterious effects, how liable are most emmenagogues to act as ecbolics when used during pregnancy. I would, therefore, consider as ecbolics every direct emmenagogue known. Even some of the indrect ones will unfortunately empty the uterus when employed in amenorrhœa by the careless or unsuspecting physician. Manganese and its preparations no doubt have a strong tendency to act as ecbolics.

Drugs in Pulmonary Tuberculosis.—*The Medical Review* abstracts the following from the *Phila. Med. Journal*, August 31, 1901: W. R. Huggard points out that drugs may favorably influence the course of the disease:

1. By improving the general health; as for example, arsenic, quinine, strychnine, lime, phosphorus.

2. By increasing the local resistance of the affected tissues, as creosote, and its derivatives, salicyl preparations and counter irritants.

3. By modifying the quantity or character of the secretions, as the balsams, the terebinthinates, the essential oils, morphin and apomorphin, and inhalations, especially of formaldehyd.

4. By controlling symptoms that react prejudicially on the Patient. Amongst these are: (a) Digestive ailments. (b) Excessive or needless cough, which shakes and exhausts the patient, causes fever, or prevents sleep. (c) Scanty expectoration and retention of secretions. (d) Fever, which spoils appetite, and prostrates the patient.

5. By removing complications, such as syphilis.

His line of treatment is determined, in the first instance, by the digestive system, by the general health, and by the state of nutrition.

If digestion is bad, the only drugs indicated are such as will restore it to a normal condition. If digestion is good, the general condition satisfactory, and the patient improving, he refrains from using drugs unless some definite indication is present. Amongst the most important indications for drugs are persistent afternoon pyrexia in spite of absolute rest out of doors; a tendency to recurrent febrile attacks or to slight inflammatory attacks. This tendency is usually combined with impaired nutrition and with a low state of general health. In these conditions arsenic, strychnine, quinine, and salol are amongst the most useful tonics. Active softening, excessive cough, over-abundant expectoration, and, more rarely, scanty expectoration, expectoration of extremely purulent or nummular character, require attention; and the drugs useful for these conditions generally seem to have a favorable influence on the course of the disease in addition to the temporary relief from discomfort they may afford. Amongst such drugs are formaldehyd vapor, creosote and its derivatives, except the carbonate of guaiacol, which has generally seemed to be inert, terpin hydrate, oil of cinnamon, myrtol, the balsams, and the lime salts. In sluggish chronic softening, counter-irritation by iodine or by small flying blisters is of the greatest use. When an old syphilitic taint is present its removal should be our first care.

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Editorial.

OUR LEADING ARTICLE in this issue, on "Interstitial Nephritis" is of exceptional value because of the completeness with which the subject is presented by the essayists and elaborated by the following discussion. The therapeutic suggestions and comments particularly give the reader the benefit of wide experience and observation. The article is a little long for our columns, but it is all worth careful perusal.

* * *

An emmenagogue "stimulates, or leads to menstrual flow;" an ecbolic is an abortifacient. Practically, the two terms are used synonymously, and the former is the more popular. Both, and what they stand for, should be extremely unpopular. But the subject, especially as it touches details of comparative activities of agents, is an interesting one to physicians, and for that reason we selected Dr. BOVEE'S excellent, brief though comprehensive, paper on Ecbolics for reproduction in our columns. It is one of the papers which should be marked for reference.

* * *

METHYLENE BLUE in tuberculosis, suggested nine years ago, is revived by Dr. Lane in a communication to *American Medicine* (see page 62). The therapeutic value of this drugs is varied, but its popularity is growing only slowly. Clinical records gathered during the past ten years show, on the authority of such men as Flint, Einhorn, Combemale, Moore, Ehrlich, Laveran, and many others, that methylene blue yields good results as analgesic, antiperiodic, antiseptic, and antidiabetic, in neuralgic and rheumatic affections, in malaria, in nephritis, cystitis, and tuberculosis, in malignant neoplasms, in diphtheria, in diabetes, and—most popular use to which it has been put—in gonorrhea. The average dosage is 3 to 8 grains per day, usually 1 grain at a time. The best mode of administration, undoubtedly, is in capsule form, with some oil—preferable one that will aid in the indicated case.

* * *

THE UTMOST importance must, however, be laid on the quality of the methylene blue used. It must be chemically pure, prepared expressly for medicinal use; free from zinc and arsenic. The temptation to use a cheap aniline blue, costing one-fifth as much as the medicinal product, is great, and manufacturers yield more easily to this temptation than will the individual druggist.

* * *

THE CRIME of substitution, as we have said before in these columns, is not so much chargeable against druggists or pharmacists, as against large manufacturing concerns. Every physician knows the plausible young men, who call with sample cases of pills, tablets, elixirs, etc., and who solicit orders for every standard preparation—as well as for their own firms' substitute for every advertised pharmaceutical specialty known to the medical press and profession. These are the advance agents of substitution. They substitute at wholesale—and incidentally they tempt the occasional druggist to substitute for them.

COUGH IN PHTHISIS.—Daly (*N. Y. Med. Jour.*, Jan. 5, 1901) recommends for the hard, dry cough of phthisis the following combination, in pill form:

℞ Camphor 2 grains;
Heroin $^1/_{12}$ grain;
Creosote 1 drop.

Current Literature.

Methylene Blue in Tuberculosis.—Dr. C. R. Lane, of Brooklyn, writes to *Amer. Medicine*, Sept. 7, 1901 :

Having two cases of tuberculosis pulmonalis in the second stage, in which the patients improved very rapidly on 1 grain doses of methylene blue, given three times a day, I report the circumstances, as I find but little mention of its use in tuberculosis, except by Dr. Althen (*Münchener medicinische Wochenschrift*, January 5, 1892).

As the cases were typical and the diagnosis in the last one was confirmed after a sputum examination by the board of Health of New York City, I will not give the histories in detail, but would like to call attention to a few facts. The temperature in both patients was reduced from over 103° F. to normal in less than a week, with a corresponding reduction in the pulse rate, but the respirations were not proportionately as quickly reduced. With the lapse of the fever their appetites improved, and they immediately began to gain strength.

My faith in methylene blue is strengthened by finding it is eliminated in the bronchial mucus, the cellular elements and some of the bacteria in the sputum being stained blue.

The Treatment of Diphtheria Other than with Antitoxin.— J. P. Crozier Griffith (quotes *Pediatrics* from *Therapeutic Gazette*, July 15) says in regard to prophylaxis :

Thorough isolation of those affected is important, as is the careful disinfection of everything which has been in close proximity with the patient. Not only so, but individuals in any way concerned with the nursing of patients with diphtheria must come as little as possible into contact with others. Children of the family should be taken from the house whenever possible, and, further, themselves quarantined for a time—ten to fourteen days—lest they carry it to others. It is a matter of repeated observation that the germ of the disease can often be found in the throat of a healthy nurse caring for a case of diphtheria.

The nurse in attendance should wear, of course, wash dresses and a cap which thoroughly covers the hair. On leaving the room for her necessary outings, she must change her dress and disinfect her hands and face. The physician must never forget that he can himself readily become a source of danger to his other patients. Before he enters the sickroom he should cover his clothes with a garment of rubber or linen, and it is much better, too, if he can put on his head some such article as the oiled silk cap worn by women bathers at the seashore. On leaving he should wash his hands and face with a disinfectant, such as a solution of carbolic acid or lysol.

As in all infectious diseases, the room should be carefully selected in the upper part of the house, if possible opening into another room, best a bedroom. The windows of this anteroom should be kept open as much of the time as possible. All ingress to the sickroom should be through the anteroom, and the other door of the sickroom leading into the entry should be locked and the cracks stuffed with cotton or closed in some similar manner. It is commonly advised to hang a sheet moistened with a disinfecting fluid, such as carbolic acid or corrosive sublimate, at the door leading from the entry into the anteroom. All upholstered furniture, curtains, books, toys, etc., should be removed and the carpet taken up and replaced by old rugs or strips of carpeting which may be destroyed later. Pieces of linen should be used in place of handkerchiefs and must be burned immediately. All the bed linen and personal linen of the patient should be soaked in a disinfectant solution in the anteroom before it is removed for washing. All excreta should be disinfected with a sublimate solution. The meals of the nurse should be carried to the door of the anteroom and there taken

in by her. After using, the plates, forks and so on should be washed in a disinfectant, preferably carbolic acid, as bichloride will, of course, injure metal.

After the disease is over the patient must still be isolated for at least three weeks from the beginning of the attack. A still better method, where culture can be taken, is to continue isolation until the Klebs-Loeffler bacilli can no longer be found in the throat.

Hypodermic Medication.—Methods and advantages are thus described by Bartholow, in *Maryland Medical Journal:* After drawing the required amount of fluid into the syringe, expel the small globules of air by everting the syringe and pressing the piston upwards, until a drop of the liquid appears at the point of the needle. Draw the skin up and tense at the required place, and press the needle through into the subcutaneous tissues; which done, inject the fluid slowly into them. After the needle has been withdrawn, place the finger over the puncture for a short time. The veins, inflamed spots and bony prominences are places to be avoided in puncturing; the arm, thigh, abdomen, back and calf of the leg are places suitable for puncturing. In hypodermic medication the dose is about one-half that required by the mouth, and the effects are more rapid, certain and exact.

Dilatation of the Cervix Uteri in Obstetric Practice.—From an article under this title, by H. J. Garrigues in the *Med. News* (Sept. 21, 1901), the *Phila. Med. Jour.* abstracts this review of methods:

The drugs that are used consist of an ointment of belladonna smeared on the cervix, but, on account of the danger of infection, is very little used at the present time. A good substitute is atropine dissolved in sterilized water, injected into the tissue of the cervix in the dose of $^1/_{40}$ grain; cocaine, 10 per cent. solution, painted inside and outside; chloral hydrate, grains xv, every twenty minutes for three or four doses; antipyrin, grains x, every half hour until three doses are given; strychnine, $^1/_{30}$ grain, repeated every twenty minutes until $^1/_{10}$ has been given. Quinine in 10 grain doses is also used. Ipecacuanha, grains ii, repeated every twenty or thirty minutes, is very excellent, although it is very disagreeable. The mechanical means are numerous, consisting of (1) tampons; (2) manual dilatation; (3) dilatable bags; (4) expanding metal dilators; (5) deep surgical incisions. The author favors manual dilatation, and says that a cervix toward the end of pregnancy may be so dilatable that in fifteen or twenty minutes it may be fully dilated. It is opened by pressure with the index finger and then dilated by lateral pressure exercised with the crossed thumb and fingers, using the flexor muscles.

Cocaine and Eucaine in Local Anesthesia by Combined Infiltration and Regional Methods.—Terrett (*New Orleans Medical and Surgical Journal,* March, 1901) makes a concise and what he believes to be a tenable argument for the more general use of the combined method of applying cocaine and eucaine in local anesthesia, and for the advisability of carrying this procedure, whenever feasible, clear into the lines of major surgical work.

After studying several cases he concludes that:

1. Cocaine and eucaine are undeniably the most potent, efficacious, and reliable local anesthetics in general use.

2. That the agents in a menstruum of simple sterile water at ordinary temperature, when freshly prepared, give entire satisfaction, and, when injected in the proper manner, can be made to engender the most profound and complete anesthesia.

3. The cocaine and eucaine must infallibly supplant a general anesthetic, whenever this latter is contraindicated by some organic lesion, whereby its use would be a menace and directly endanger the patient's life.

4. That the combined infiltration and regional method is of unquestionable value, and its practical usefulness confined especially to those parts where the nerve distribution is easily accessible—notably to the extremities and ribs.

5. That the entire absence of any untoward or unfavorable symptoms, as a result of this procedure, argues most favorably and cogently for its ulterior recognition and more general use.—*Ther. Gaz.*

Treatment of Melancholia.— From a report by Bruce and Alexander, in the *Lancet*, August 24, 1901, the *Phila. Med. Jour.* abstracts these conclusions: These observers believe that melancholia is a disease of disordered metabolism and that the treatment should be directed so as to increase the elimination of waste products through the channels of the urinary and integumentary systems. They accomplish this end by the administration of an abundant fluid dietary. This treatment has a tendency to lower the arterial tension and assist in the elimination of waste products which are contained in the blood. The good results which these observers have had by this plan of treatment, seem to indicate that it is founded upon a sound therapeutic basis. They append a report of four cases.

Sugar as an Article of Food.—The *N. Y. Med. Jonrnal* (Sept. 28, 1901) says editorially: Sugar has of late come to be regarded as a supporting agent, one capable of counteracting the causes of fatigue to a considerable extent, but its habitual and excessive consumption often induces a sense of satiety which leads to the neglect of aliments highly necessary for the system. Dr. G. von Bunge (*Allgemeine medicinische Central-Zeitung*, 1901, No. 58; *Wiener medicinische Blätter*, August 1st) emphasizes this fact and advises the use of sweet fruits instead of pure sugar by persons who crave sweets. Sugar, he remarks, contains neither iron nor calcium, both of which are necessary for the nutrition of the body.

On the other hand, M. Lépine, of Lyons, who controverts von Bunge's contention *Semaine medicale*, 1901, No. 27; *Wiener medicinische Blätter*, August 1st) points out that numerous other common articles of food are poor in iron and calcium, while meat, milk, and the yolk of an egg are rich in these elements. The use of sugar, he feels sure, will never keep children from drinking milk or eating eggs. Our own impression is that it would take an inordinate amount of sugar to interfere with a healthy child's appetite to any serious extent, though we did once know a man who was reputed to give his children sugar to keep them from over-eating.

To Abort Gonorrheal Infection. — Zydlowicz (*Nowiny lekarskie*, March, 1901, *Vratch*, Vol. XXII, No. 17) claims that gonorrhea, when seen early, may be aborted by a 10 per cent. solution of nitrate of silver. The urethra is washed with a solution of boric acid, anesthetized by a 10 per cent. solution of cocaine, and thoroughly swabbed by means of a cotton tampon saturated with the nitrate of silver solution. In one case the gonococci disappeared from the discharge on the following day, and complete cure resulted in 12 days.—*Phila. Med. Journal.*

A Method of Treatment in Gynecological Cases.—It is one of the encouraging signs of the times that those persons who are wont to designate themselves homeopathic practitioners are of their own free will using more and more each year those measures which increasing experience in the realm of regular medicine has proved to be efficacious. One of the chief reasons for this is that regular practice is becoming more accurate and rational thro' various discoveries which are being made concerning the etiology and pathology of disease, with the result on the one hand that the so-called regular school is becoming more scientific in its methods, and the so-called homeopathic practitioners, seeing the reason for our procedures,

naturally turn to them in treating ills depending upon really serious conditions. As a result some of the homeopathic schools now confer upon their graduates two degrees: one, that of Doctor of Medicine, and the other, that of Doctor of Homeopathic Medicine, and claim that by so doing their graduates have an ethical right to practice whatever they please, with a touch of homeopathic practice whenever that is desirable. These privileges have, of course, always existed for regular practitioners.

Our attention has once more been called to this matter by an article in the *American Journal of Obstetrics* by Dr. James C. Wood, who describes a method of treatment in gynecological cases which he has found of use. Many of these cases are suffering from minor gynecological ailments, and therefore do not need any very radical treatment, but every practitioner is aware of the fact that women suffering with these symptoms are apt to come to his office for local treatment. Much of the local treatment has at times been inefficacious or harmful. For these conditions Dr. Wood describes the methods which he carries out, which are all of them anything but homeopathic, although he is Professor of Gynecology in the Cleveland Homeopathic Medical College. It is because these methods of treatment seem rational, and not limited to any particular ideas in regard to influence of drugs in disease, that we call the attention of our readers to them.

Dr. Wood states that he is much dissatisfied with the methods of swabbing and tamponing, and strongly recommends the method of hand-spraying originally commended by Dr. Skene. Whether the leucorrhea be due to gonorrhea or other causes, he sprays the vaginal walls through a fenestrated speculum with a fifty-per-cent. solution of peroxide of hydrogen, and it is then wiped away, so that the parts are left clean and blanched. This is followed by an antiseptic spray as follows:

Boric acid, 4 grains;
Thymol, 1-16 grain;
Sodium borate, 1 grain;
Sodium bicarbonate, ½ grain;
Oil of pine 1-6 minim;
Eucalyptol, 1-10 minim;
Oil of gaultheria, 1-10 minim;
Oil of peppermint, 1-10 minim;
Alcohol and glycerin, of each, 2 fluidounces.

In other instances where the secretion is mucous and tough, Dobell's solution is excellent. If the condition is due to the gonococcus, weak solutions of the new silver salts are employed; and if the urethra is infected the urinary meatus is also carefully sprayed, pressure being made upon the posterior portion of the urethra with the finger so as to prevent the driving of infection into the bladder. After the spraying the vaginal walls are kept apart by a lamb's-wool tampon medicated with a ten-per-cent. glycerin solution of ichthyol, and the patient is instructed to remove the tampon and take a 1:2000 bichloride douche before presenting herself for treatment, which ought to be repeated anywhere from twice a week to every day.

In cases where the infection is nonspecific and the discharge is purulent, much good can often be produced by applying a fifty-per-cent. glycerin solution of calendula officinalis; or, if it is profuse and stringy, the aqueous extract of hydrastis may be employed in the same way. If there is periuterine tenderness, ichthyol is exceedingly valuable. This point has already been emphasized in our pages in an article by Prof. Montgomery of the Jefferson Medical College. A tampon wet with the following mixture may be introduced into the vagina high up in these cases:

Ichthyol, 1½ drachms;
Tincture of iodine, 1 fluidrachm;
Liq. hydrastis (glycerite), 4 fluidrachms;
Carbolic acid, 10 drops;
Boroglycerite (25-per-cent.), q. s. ad 4 fluidounces.

It is very certain that by means of the atomizer we can force medicaments more deeply into the tissues than when they are simply applied by application.—*Therapeutic Gazette.*

Book Notices.

TRANSACTIONS OF THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION. Complete account of Ninth Annual Meeting held at Washington, D. C., Sept. 19, 20, and 21, 1899; also Tenth Annual Meeting held at New York City, Sept. 25, 26, and 27, 1900. Illustrated. Pages xv–391. Size, 9¼ by 6¼ inches. Price, extra cloth, $2.00 net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

A work of this nature is, obviously, not to be regarded as a systematic text book, but it has the great advantage of presenting a number of phases of the subject in an up to-date manner, impossible in a text book by a single author. Two annual meetings are reported: that at Washington in 1899, and that at New York in 1900. Comparatively little of the proceedings deal with the X-rays. Fouveau de Courmelles describes some diagnostic cases, among them one in which the stomach was radiographed for the first time, he thinks, after the administration of bismuth. This is probably an error, as Benedict, of Buffalo, made a series of fluoroscopic examinations in 1897, following an unsuccessful attempt of radiography in the preceding winter, and Williams, of Boston, has reported a series of investigations at about the same time. Since then the stomach has frequently been examined by various observers with the X-rays, though we are unable to recall specific reports as to the use of photographic plates. As Benedict pointed out in his first report gastric peristalsis is apt to be active so that the results of radiography cannot be expected to be satisfactory, and the diagnosis of diminished area or of thickening of the stomach wall, as made by de Courmelles, should be checked by ocular inspection of the fluoroscopic screen.

Massey reports eight cases of cancer (including one of sarcoma) of various parts, apparently cured by his method of gold-mercuric cataphoresis. Several members report experiences with the electric-light method, and, in general, the verdict is favorable. Walter H. White makes a plea, which should be recognized as rational for the general use of the voltmeter. The other papers include discussions of more commonly employed methods of electro-therapy and a few interesting theoretic considerations, for instance, the "hardness" of Crook tubes, by Eugene R. Corson.

THE PHYSICIANS' VISITING LIST FOR 1902. 51st year of publication. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa.

Blakiston's Visiting Lists are well-known and esteemed. The paper is thin and tough, the arrangement is convenient, the various tables of poisons, doses, new remedies, etc., are compactly arranged, the binding is neat and good — in short, these Lists, in variety to suit the user, are unexcelled. A descriptive list will be sent on request addressed to the publishers.

ETIDORHPA. By JOHN URI LLOYD. New York: Dodd, Mead & Co. (Price, $1.50)

We read this "strange history of a mysterious being, and the account of his remarkable journey," years ago, when first published by the author. In its present form, revised and newly printed, for circulation among the general public, it is as interesting as ever, and it will no doubt find an ever increasing host of readers — especially among educated and professional people.

A GALLERY OF PICTURES OF INTEREST TO MEDICAL MEN.

We have received an album bearing this title and containing twelve handsome colored pictures on heavy plate paper, suitable for framing, from the Rio Chemical Co., 56 Thomas St., New York, N. Y. The pictures are well-known to the medical profession, illustrating such subjects as, "An Accident," "Home Treatment," "A Ray of Hope," "A Hypnotic Experiment," "Lesson in Anatomy," etc.

The reader can procure a copy for 25c., addressing the publishers as above noted.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, NOVEMBER, 1901. No. 5.

Leading Articles.

A FEW HINTS ON THE TREATMENT OF FISTULA IN ANO.

By CYRILLE A. PROTIN. M.D., New York City.

There are few conditions which are so unsatisfactory to treat without operative measures as fistula in ano. Many patients, obstinately refuse to submit to surgical treatment either from a feeling of fear or from an inability to devote the time necessary from their business. Besides, these fistulæ are not infrequent in tuberculous subjects in whom operative procedures of any kind are not well tolerated. It has been my fortune to treat quite a number of cases of this disease without operation, and in the following I desire to call attention to a method which has proved very successful in my hands. This consists of first cleansing the parts thoroughly with peroxide of hydrogen, and then flushing out the fistulous tract with a solution of carbolic acid or bichloride of mercury, 1 to 4000. After drying with gauze, a stimulating application is made with silver nitrate or nitric acid on a probe. A strip of gauze anointed with an ointment of protargol, 5 to 10 per cent., is then inserted and a T-bandage applied. In cases in which the silver nitrate does not stimulate granulations sufficiently the use of the curette is of benefit.

The cases observed by me have been, for the most part, complete fistulæ resulting from abscesses, leaving behind fistulous tracts which do not heal, owing to the contraction of the spincter muscles, and then discharge a thin watery pus. There were also some cases of blind internal and external fistulæ, having one or more openings, either outside or within.

I subjoin the histories of a few cases which will afford a better illustration of the method of treatment.

Case I.—Male, aged 36 years, came to me for the treatment of indigestion. He had suffered at various times from pain in the region of the anus and great heat, but thought that this would get well of its own accord. After an absence of three weeks he returned and stated that a boil had burst and great relief had followed. He bathed the parts, but noticed that they did not seem to heal. On examination I found a complete fistula, the outer opening being about ¾ of an inch from the anus. The fistulous tract was filled with pus and some blood. I first irrigated with a solution of bichloride of mercury, 1-4000, and then swabbed it out with peroxide of hydrogen on gauze; after which an application of silver nitrate was made, and the fistula packed with gauze anointed with ungt. protargol, 10 per cent., this being held in position with a T-bandage. I prescribed tinct. ferri chl., 10 minims, t. i. d. Under this treatment the case progressed nicely, the canal gradually filling up with granulations, until in about eight weeks it was completely closed. He has had no further trouble since then, a period of five months. The dressings were changed every day for the first week, after that every second day, and later every third day.

Case II.—Male, aged 40, presented a blind (incomplete) external fistula. He gave a history of abscess about three months before, which had failed to heal. There was a discharge of pus, and the opening was very large. I cleaned out the cavity as before with bichloride solu-

tion, 1-4000, applied peroxide of hydrogen, silver nitrate, and packed with gauze covered with protargol ointment, 10 per cent. This fistula also healed gradually from the bottom, and without any inconvenience to the patient, a cure being effected in six weeks.

Case III.—Male, aged 26 years, blind external fistula of one year's duration. The patient was employed at hard manual labor. He was given the same treatment as in the foregoing case, but with very slight improvement. I then curetted the cavity thoroughly, and packed with gauze anointed with the ointment of protargol ten per cent., and it immediately began to heal, and was completely closed in about three months. This I think is a good illustration, as the patient was on his feet all day, lifting and bending.

Case IV.—Male, 45 years old, complete fistula of about six months' duration. This was treated as above, but with only slight improvement. He finally became discouraged and asked for an operation, which was granted. The fistula was laid open and dressed with ungt. protargol, complete healing taking place.

Case V.—Male, aged 35 years, incomplete blind external fistula of three months' duration. Same treatment as above, except slight curettement of the edges of the opening; complete closure in nine weeks.

Case VII.—Male, aged 42, blind external fistula of seven months' duration. Same treatment; cured in ten weeks.

The protargol ointment referred to has been an essential part of the treatment. It is convenient and can be easily applied, and may be employed with decided benefit in a large number of instances before resorting to operative procedures. The application should be made every day or every other day after previous cleaning, as already described.

Aside from its use in fistulous cases I have employed this ointment quite extensively in the treatment of ulcers of the leg, in which it not only relieves pain and the feeling of heat in the parts but also promotes healthy granulations. A few cases are added here for the sake of illustration:

Case I.—Male, aged 50 years, complained chiefly of pain and heat in the parts. Ulcers in several places on the right leg. They were washed with carbolic solution and dressed with a five per cent. protargol ointment and tight bandaging; complete healing in two weeks; skin tight over former ulcers.

Case II.—Female, aged 36, ulcers on both legs, with varicose veins; great pain and itching. Ulcers present about two years; surrounding parts greatly inflamed. Wet dressings of bichloride were applied for a few days to allay inflammation, and then the ulcers were incised with a scalpel in all directions, and dressed with protargol ointment, and a tight bandage applied. Occasional applications of silver nitrate in the stick were also made to the surface of the ulcers. The patient was cured in nine weeks. There was a subsequent breaking down of one of the ulcers, which rapidly responded to treatment.

Case III.—Male, aged 28 years, traumatic ulcer of the right leg of a year and one-half duration. It was covered with exudation which had dried and was very painful. I first removed as much of the secretions as possible, and then curetted the ulcer and dressed it with protargol ointment, 5 per cent., and applied a tight bandage. Cured in ten weeks.

In another case, that of a child, aged 4 years, there was a furuncle on the left arm above the elbow which was treated with the silver nitrate stick, and then dressed with ungt. protargol, 5 per cent. Internally, tr. ferri chlor. was administered. A cure resulted in two weeks.

On the ground of my observations it would seem, therefore, that protargol has a large field of application in the treatment of fistulas and ulcers of various kinds, and that it may often be resorted to with benefit in fistulous conditions without the necessity of having recourse to operative measures.

*A CAPITAL SIN OF MODERN GONORRHEA.**

By V. G. Vecki, M.D., San Francisco, Cal.

When Neisser discovered the gonococcus many an enthusiastic physician thought that henceforth it would be easy to cope with gonorrhea. To-day, after nineteen years have passed, looking for the results of this discovery, we find but an always increasing number of new silver salts, chemically pure, non-irritant, all of which are more than sure to destroy the gonococcus and eliminate gonorrhea in a statistically proven number of days or weeks.

New methods of irrigation invented in France, improved in America, Germany and Russia, are claimed to effect a more or less speedy cure. Endoscopes were invented for the inspection, ingenious instruments for the dilatation of the urethra, and others for various kinds of local applications, from the meatus up to the urethra. And still the cases of chronic conditions following infection with the gonococcus are not becoming any rarer, and are for many a practitioner daily bread in more than one sense.

Because used to such disappointments by the dwindling away of equally sanguine hopes in regard to tuberculosis and other diseases, whose causative germs laborious and tedious researches have revealed, the thinking part of the medical profession can hardly be surprised. No one can fail to be astonished, however, when after so many years of acquaintance with the miserable gonococcus, the simplest principles of asepsis are utterly disregarded by almost the entire profession. True, an up-to-date surgeon disinfects every one of his instruments by boiling it for about ten minutes, knowing that a simple washing in any kind of an antiseptic solution does not disinfect all. Thus, catheters and other instruments constructed to be introduced into the urethra, that cannot stand boiling, are gradually disappearing from use in the hands of thinking urologists. It is not, to say the least, incomprehensible to see that the physician who disinfects his own hands before, as well as after, handling the urethra, nevertheless in nine cases out of ten sends his patient home, giving him a prescription for a urethral syringe that cannot be disinfected, and actually is never disinfected?

Minor abominations we are used to. In many cases a urethral syringe is prescribed without any details regarding make, form or size. Frequently the patient is simply told to get a syringe, trusting to good luck that he will find something that will not harm him. Usually the patient is given a syringe and told to use it with a certain medicine, and the poor fellow has no idea how to do it. It is nothing unusual to find people who have used the urethral syringe for years, thinking themselves to know all about it, who, in fact, had never made an injection that could do any good.

Physicians who are wrapped up in interesting, rare cases, brilliant abdominal, mediastinal or intracranial surgical operations, may think all these small matters of a trivialty that should not occupy their time, but we have just to consider the existence of how many persons, guilty and innocent, rendered miserable and gloomy just because such small matters are disregarded.

Now we will suppose that the patient has been provided with the correct syringe and instructed how to use it properly. He may be a careful man, keep his syringe clean, and even go so far as to wash the tip as well as it can be washed every time before using. What must happen? A simple microscopical examination proves that the apparently clean tip is covered with numberless gonococci and streptococci, and that re- as well as auto-infection are absolutely unavoidable.

Once come to this conclusion we know that the urethral syringe in its present

* From the *Pacific Medical Journal*.

form is an abomination, that it contributes to the entertaining of various gonorrheal complications and their chronic course more than all the noxious influences taken together. Consequently, a urethral syringe must be devised which will permit thorough disinfection.

A few days ago I submitted to the American Hard Rubber Company the design for a hard rubber urethral syringe with a detachable soft rubber tip which can be disinfected in boiling water. We know that the soft rubber hose loses its elasticity and its so-called life by continued boiling. Such a tip, if well made, would stand from fifty to sixty times boiling and could then be exchanged for a new one, the body of the syringe always remaining the same. Several tips ought to be given with each syringe.

Finally, it may be mentioned that there is another method of having the tip of the syringe sterilized by keeping it in a solution of equal parts distilled water and glycerin with one per mille of sublimate. After remaining for six hours in such a solution, any kind of a rubber piece would be free from all germs.

The Treatment of Tuberculosis with Ichthyol and Creosotal.—Goldmann (*Arte medica*, July 21st), at a recent meeting of the Medical Club of Vienna, recommended the following solution for internal use:

℞ Carbonate of creosote..... 225 grains;
Dissolve in rectified spirit..... q. s.;
Add ichthyolate of ammonium., 150 grs.;
Peppermint water..... 6 ounces.

M. Three teaspoonfuls daily, in sweetened coffee, at the beginning of meals.

To conceal the taste of ichthyol, the author uses pills easily soluble and containing:

℞ Ammonium ichthyolate..... 1½ grain;
Carbonate of creosote.... 3/5 of a grain;
Peppermint oil q. s.
M. ft. Pil. From three to twelve pills daily.

After a short use of the ichthyocreosotal the anorexia ceases, and in some cases there is an augmentation of the body weight of as much as eight or nine pounds weekly.—*N. Y. Med. Journal.*

THE THERAPEUTICS OF WHOOPING-COUGH. *

By Thomas J. Mays, M.D., Philadelphia, Pa.

Although whooping-cough, one of childhood's most common maladies, is accompanied by marked catharral disturbance of the bronchial tubes, it is unquestionably a spasmodic affection of the pneumogastric nerves, due to the affinity of a special virus for the latter structures, and in this respect bears a certain analogy to asthma and to other spasmodic disorders of the respiratory organs. Of its contagious nature there can be no doubt. A knowledge of its pathology is, therefore, quite satisfactory, but, when we come to treat it, the practitioner must confess that there is no disease before which he stands so helpless as he does before this. At least this has been the writer's experience, who has administered every known remedy, running through a list of such drugs as the bromides, camphor, chloral, chloroform, bromoform, quinine, antipyrine, phenacetine, carbolic acid, etc., without the slightest relief. In more recent years, however, and in conformity with my belief that disorders of the pneumo-gastric nerves is not only responsible for all the various forms of spasmodic cough, but also plays an important part in the evolution of many diseases of the lungs,† I applied counter-irritants over these nerves in the region of the neck in this disease with the most signal benefit. In fact this method is the only one that has ever given the least promise of amelioration to the writer. The practical way of applying this remedy is as follows: Trace the pulsating carotid artery from behind the angle of the lower jaw to the clavicle on both sides of the neck. This will be a landmark for finding the pneumogastric nerves which lie in close proximity and slightly behind the carotids. Gentle massage and

* From the *N. Y. Medical Journal*, Sept. 7, 1901.

† See *Consumption, Pneumonia, and their Allies*, By Thomas J. Mays, M.D., p.550. E. B. Treat & Co., New York, 1901.

kneading of this region of the neck, every hour or two, yield beneficial effects in many cases of this disease. The application of a strip of mustard plaster, about two inches wide, from the angle of the lower jaw to the clavicles on each side of the neck, two or three times a day, until the full effects of the mustard are evident, is almost sure to cause amelioration of the spasmodic cough. Equal parts of gum camphor, chloral hydrate, and menthol, applied over this region, are also very useful. Painting the same area with tincture of iodine, twice a day, until irritation of the skin is produced, is a beneficial procedure. Finally, in very stubborn cases the hypodermic injection of silver nitrate over the vagi must be resorted to in accordance with the following plan: Lift the skin over the vagus between the thumb and the forefinger of the left hand, introduce the hypodermic needle just under the elevated skin, and inject five minims of a two-and-a-half-per-cent. solution of cocaine hydrochloride. Detach the syringe from the needle and allow the latter to remain in the puncture. Wash out the syringe with water, draw a two-and-a-half-per-cent. solution of silver nitrate into the syringe, attach the latter to the needle, and throw in from three to six minims of the silver solution.

Under the influence of this line of medication the child becomes more comfortable, the paroxysms become less frequent, the severity of the cough diminishes, and altogether the affection assumes a different character, often in the space of a day or two.

For Chronic Otorrhea.—According to the *Gazetta degli ospedale e delle cliniche* for May 21, 1901, Verbitsky recommends:

℞ Potassium iodide..... 15 grains;
Tincture of iodine..... 150 minims;
Absolute alcohol, Glycerin, each, 225 "
Powdered iodoform..... 15 grains.
M.

A small quantity of this fluid is to be injected into the auditory canal and into the tympani cavity.—*N. Y. Med. Journal.*

*COAL TAR ANTIPYRETICS IN CHILDREN.**

By J. B. McGee, M.D.,
Professor of Therapeutics, Cleveland College of Physicians and Surgeons.

While there are many of the so-called coal tar antipyretics, and additions are being continually made, the newer members of this class closely resemble in therapeutic range those first introduced, with whose action we are quite familiar. Their use as antipyretics is rather limited in children, in whom pyrexia, as a rule, means relatively less than in adults, is better borne, and usually responds quite readily to treatment. We are aware that these agents simply control symptoms, possibly serious at the time, and for this action they should be reserved; there is more risk probably in the infection in cases running a continued course at least, and upon the infection they exert no influence. It is asserted, too, that they are liable to produce depressing effects, to interfere with elimination, and to alter the composition of the blood. We should not, however, discard them because injurious effects have followed their injudicious use, the dose perhaps being too large, too frequent, or possibly both combined; while such results rarely follow small doses rightly employed, and they fill many indications safely. It is a familiar fact that moderate pyrexia is practically harmless, the simple presence of fever not necessarily calling for antipyretics, but when such are indicated, those producing the result with the least risk and shock to the system, and with the least disagreeable incidental effects, should be chosen. The bath, cold or warm or in its modified forms of sponging pack, or compress, will ordinarily be sufficient, and the general position of the profession is that it is to be preferred to the antipyretic drugs. Personally, with children, I rarely employ any other agent internally than a simple diaphoretic, small

* Presented at the Ohio State Medical Society, Cincinnati, Ohio, May 8th, 1901.—Reprinted from the *Cleveland Medical Gazette*, Nov., 1901.

doses of aconite, or of phenacetin. The general estimate of the relative safety of the synthetic derivatives probably is that phenacetin is first, then antipyrin, and acetanilid the last of the trio, although so high an authority as Hare considers antipyrin the safest; however, in quite an extensive experience with phenacetin, my personal preference, I can recall no case in which it produced serious results, the only unpleasant one being profuse perspiration. Antipyrin and acetanilid have their advocates, but it is said that cyanosis more frequently follows when the latter is employed; Jacobi strongly advises against its use, and it is doubtless true that those agents of the class which, like the phenetidin derivatives, act gradually, are less apt to cause collapse. One to three grains for a child two to five years of age every three or four hours, will generally be a sufficient dose of phenacetin, and in addition to the antipyretic effects will often act as a sedative, quieting the nervous systoms present and favoring sleep.

The newer derivatives allied to phenacetin, as lactophenin and kryofin, are evidently efficient and safe, and my experience with them, while limited, has been satisfactory. All the coal tar compounds appear to possess analgesic and antispasmodic powers, and are quite generally employed in whooping cough. Antipyrin probably has the preference here, perhaps because of its solubility; two or three grains daily for each year of the child's age seem to lessen the number and severity of paroxysms. Jacobi recommends from one-half to two grains three or four times a day for each year of age, and an occasional large dose at night, but believes belladonna to be still the best remedy, while Holt prefers antipyrin. My own choice is quinine, which I have given in almost a routine manner, and generally with benefit. The effects produced are doubtless due, as asserted by Binz, to a general rather than a local action, as they usually follow, no matter how it is administered. It is a clinical fact that children bear quinine extremely well, and the only objection is its bitterness, and for some time past I have been using euquinin, one of the derivatives which is tasteless, with equally good results, although it is said to be not quite so powerful. As pertussis is a self-limited disease, it is generally assumed that no treatment will shorten its course; but while not a specific in any sense of the word, it has seemed to me that quinine, or its new derivative, used early, does appear to some extent to diminish the duration and lessen the severity of the disease. Antipyrin and phenacetin are also symptomatic remedies in other nervous and spasmodic affections. They are useful in chorea when arsenic, our main reliance, sometimes fails, and in epilepsy form an efficient supplement to, or substitute for the bromides in cases where they disagree.

In influenza I have found small doses of phenacetin as efficient as in the adult, in quieting the nervous symptoms, relieving restlessness, and the neuro-muscular pains. As far as local action is concerned the power of antipyrin in solution, as an active and cleanly styptic, is well known, while acetanilid is quite extensively employed, pure or diluted with boric acid, as an antiseptic dressing; there is some risk of its absorption, however, in children, as several cases of toxic action have been reported from its local use.

CITROPHEN.—Bolognesi (*Bulletin Général de Thérapeutique*, April 8, 1901) considers citrophen one of the best antipyretics and analgesics which we have. He has obtained excellent results from its use in cases of migraine, lumbago, acute articular rhaumatism, pains in the limbs and similar neuralgic conditions, 12 of which are reported. Given in the dose of from 15 to 40 grains daily to adults, and 7 to 15 grains to a child, it produced no bad effect on the organism, neither cyanosis, roaring in the ears, nausea nor gastric disturbances; producing, on the contrary, a sedative action, followed by refreshing sleep.—*American Medicine.*

*ACUTE AMYGDALITIS: ITS TREATMENT BY THE LOCAL APPLICATION OF TINCTURE OF IODINE.**

By Samuel Floersheim, M.D., New York.

The general practitioner is sometimes confronted with cases of acute catarrhal and follicular amygdalitis, with marked swelling of one or both tonsils, which has resisted all efforts at relief from the usual throat remedies.

The treatment of these cases worries the established practitioner and they are extremely discouraging to the beginner. For some time these cases had caused me considerable anxiety. All my efforts to formulate a prescription to give relief were fruitless. Some of the patients would go to specialists, others sought dispensaries and hospitals, and I became almost despondent.

At length I was called in to see a patient suffering from a very severe attack of acute amygdalitis, in which the administration of the usual throat remedies was of no avail. The parts were intensely inflamed and swollen, and as my continuing to prescribe the same remedies would probably have been followed by the same result, I determined, at the urgent pleading of the patient for some relief, to try heroic measures, for better or worse. I applied quite profusely to the inflamed area, with a camel's hair brush, the official tincture of iodine. The patient stated that it burned a good deal, but I advised her to "hold it out" for two minutes, after which time she gargled a few times with warm water, when the burning ceased. The result of the application was marvellous, and no happier woman could be found. I then proceeded to try the same procedure in other cases of acute amygdalitis, also with happy results.

The method of application is simply to saturate a long camel's hair brush with the tincture of iodine, and rapidly brush over the inflamed area, *i.e.*, tonsils pharynx, uvula, fauces, etc. Should the patient experience intense burning after two minutes, a gargle of plain warm water suffices to relieve the condition. If the patient does not experience the burning, I usually apply the remedy a second time, from three to four minutes after the first application.

The results, in my hands, have been marvellous. Patients who had considerable pain were relieved, and those who could not sleep, eat, or drink, were also relieved within five minutes.

In sixty-eight cases of acute catarrhal and follicular amygdalitis treated by this method within the past two years, I can only report the most gratifying results. Relief from the distressing symptoms was observed within five minutes after the application of the remedy to the inflamed area in every case observed. The intense redness and swelling also became considerably decreased within five minutes. The remedy is the most powerful antiphlogistic in acute inflammatory conditions of the throat that I am acquainted with.

When the inflamed area, after twenty-four hours, had shown much improvement with a tendency toward a rapid cure, the application of the tincture of idoine was not repeated. In some of the cases nothing else was done; in others, the usual throat remedies appropriate to the disease were prescribed. When the drug has been applied very early in the disease, I have succeeded in aborting an apparently intense amygdalitis. In acute pharyngitis and uvulitis the tincture of iodine also acts admirably. In suppurating or phlegmonous amygdalitis the application of the tincture of iodine has given relief to the intense pain, partially reduced the swelling, and has apparently hastened the rupture of the abscess. Six cases have been thus far so treated by me.

* Reprint from the *New York Med. Journal.*, Oct. 5, 1901.

In reviewing the literature I fail to find any mention of the use of the tincture of iodine in acute catarrhal or follicular amygdalitis. The most striking of the sixty-eight cases of acute amygdalitis are detailed below:

Case I.—The patient, a man, aged twenty-three years, developed an acute attack of amygdalitis. He was unable to swallow and complained of intense pain in the throat and head. At times he became delirious. The groans of the patient were pitiable and he pleadingly begged for some relief. The picture of intense suffering could not be adequately described. The left tonsil was intensely inflamed and swollen, filling the left side of the throat and touching the uvula. The right tonsil was also inflamed, but to a less degree. The pharynx and soft palate were also enflamed.

With some difficulty the tincture of iodine was profusely applied to both tonsils (but more to the left one), pharynx, and soft palate. A second application of the drug was made in three minutes.

Five minutes after the first application the patient exclaimed "Relief has at last come." Before I had made my retreat (12 minutes later), the patient had drunk some hot milk and was in a sound and restful sleep, the first sleep that he had had for three days. No other treatment was employed, and the patient made a rapid and uneventful recovery.

Case II.—The patient, a boy aged four years, was suddenly taken sick, and complained of a little pain in his throat His temperature was 105 7° F., the pulse was 153, and the respirations were 56. There were delirium and extreme restlessness. His throat, and both tonsils, were only moderately inflamed; and there were quite marked dulness, small mucous râles, and diminished respiratory murmur and expansion over the whole anterior portion of the right lung. The diagnosis of acute amygdalitis and pulmonary congestion with threatening pneumonia was confirmed by Dr. Per Hebert. The tincture of iodine was painted rapidly over the entire surface of his throat, a gargle of warm water allowed after three minutes, and a fever mixture prescribed.

Early next day, expecting my little patient to have a well-developed lobar pneumonia, I found him, to my great surprise, sitting in a large chair crying to be given something to eat and allowed to run around the house as usual. His temperature, *per rectum*, was 100.6° F., pulse 93, and respiration 26. The dulness, mucous râles, and other signs of pulmonary congestion, had completely disappeared. No other treatment was prescribed and the boy made a very rapid recovery. Probably the application of the tincture of iodine, in aborting the attack of acute amygdalitis, relieved the pulmonary congestion.

Case III.—The patient, a woman, aged thirty-two years, had a severe attack of acute amygdalitis, which was treated by five or six physicians with no relief whatever. She despaired of ever being relieved of her illness.

The application of the tincture of iodine was followed by marked relief soon after the patient left the office. The application was repeated twenty-four hours later. Other throat remedies were prescribed, but the good results obtained, the patient states, were "due to that marvellous swabbing medicine in the dark bottle." I am strongly inclined to think so likewise.

Conclusions.

1. The tincture of iodine is the most powerful antiphlogistic in inflammations of the throat.

2. Its action is very rapid, relief being often experieneed within five minutes.

3. It has relieved the intense inflammation completely when all other throat remedies had absolutely failed to benefit.

4. Its use in sixty-eight cases of acute amygdalitis has been followed by marked benefit in every case.

5. The method of application is simple.

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Editorial.

THE TREATMENT for Fistula in Ano suggested by Dr. PROTIN in this issue, is presented briefly and specifically, and re-enforced by clinical records of cases successfully treated. It is the kind of practical report from which the reader may profit, and we wish many of our readers would favor us with similar contributions—as nothing would make our journal more readable, more useful, more valuable than just this sort of matter.

* * *

PROTARGOL is unquestionably a very serviceable agent, and it is evidently yielding excellent results in a great variety of indicated conditions. In conversation with physicians we often hear of dissatisfaction with results obtained, and many hold fast to skeptical views and prejudice; yet the record of protargol, extending over many years now, and attested by good authorities everywhere, is so excellent that it may safely be termed a great success as a therapeutic agent.

* * *

THE CAPITAL SIN of Modern Gonorrhea, which we reprint from a San Francisco journal, is a readable article, and true—all but the conclusion. The dirty syringe, used bunglingly by the unpractised hand of the patient, is not only dangerous but also ineffective in too many cases. The injections should be made systematically and thoroughly by the physician; that will ensure cleanliness, and also full therapeutic effect from the drugs used. Where the patient must perform the office himself, it is much better to give him the drugs in the form of gelatine bougies, which can be readily inserted and kept in place until dissolved—yielding certain and long protracted effect.

* * *

NEXT TO securing original papers from Dr. McGEE we content ourselves with reprinting his articles from elsewhere. Dr. McGEE is a careful observer, and his papers are always practical and instructive. His views on coal-tar antipyretics as printed in this issue are worth remembering. Within certain limits, and in appropriate dosage, the newer antipyretics are excellent agents; if misused they do harm. How the different agents rank in effect and harmlessness is a matter of opinion and experience, no less than of individual iodiosyncrasy.

* * *

THE USE OF Tincture of Iodine, so lucidly described by Dr. Floersheim in his paper on Acute Amygdalitis, seems to offer excellent results, and on such good authority the reader ought to feel justified in following the suggestion when opportunity presents.

* * *

"THE DECLINE of Materia Medica," reprinted on page 80, is a misleading title to an excellent and appropriate criticism. Our materia medica was never richer, nor nearer meeting all requirements than now; the "decline" is in the devotion to its study. Just like the old saw, "Money is not the Root of all Evil; it is the Love of Money that works the harm." A distinction with a difference!

* * *

CREOSOTAL, or Creosote Carbonate, to judge by the voluminous literature attached to it in the form of favorable clinic reports by the highest international authorities, is a very valuable therapeutic agent, and its application and popularity are increasing.

Current Literature.

Chloralose. — Tyson (*Journal of the American Medical Association*, May, 1901) reports nine cases of insomnia in which chloralose produced excellent results, after the ineffectual use of sulfonal, trional and other hypnotics. He draws the following conclusions as to its use: (1) Chloralose is a prompt and safe hypnotic, more prompt in its action than any drug except morphin; (2) it is more prompt in its action than chloral, and efficient in much smaller doses than that drug; (3) its effects occasionally include involuntary actions which, while surprising and even fantastic in some of their exhibitions, are, nevertheless, harmless; (4) the drug needs to be further studied; (5) the maximum dose is 5 grains in capsule, which may have to be repeated in not less than an hour. It should be tried also in smaller doses, because it is reasonable to assume that the unfavorable effects may be thus averted, while the hypnotic action may not be interfered with.—*Amer. Medicine.*

The Treatment of Cystitis.—*American Medicine* abstracts the following from an article by Chas. Chassaignac, in the *Medical News*, Sept. 14, 1901: Chassaignac gives some general indications applying in a greater or less degree to all forms of cystitis. Rest is of great importance. Bland food is necessary. In very acute cases milk diet is the most satisfactory. French Vichy and good lithia waters should be taken freely. Mild laxatives, hot baths, hot applications, and intravesical irrigations (the Janet method preferred) are very necessary in most cases. Potassium citrate, sodium benzoate and alkaline waters should be used if the urine is not alkaline, and if anodynes are necessary, codein with hyoseyamus is a good combination. Salol and boric acid in combination are the favorite internal antiseptics. Urotropin may be added or used alone. The following clinical types of the disease are taken up *seriatim* and the special indications given. Cystitis of urethral stricture, cystitis of prostatitis, calculus and tumor, cystitis by direct infection, cystitis from ingestion of certain irritants, and gonorrheic tuberculous, traumatic and descending cystitis. The first indication is the removal of the cause when possible.

Cocaine for the Pain of Gastric Cancer. —Dr. Dieulafoy (*Lyon médical; Revue médicale*, July 17) recommends:

R Cocaine hydrochloride $\frac{1}{100}$ of a grain
Morphine hydrochloride $\frac{1}{100}$ of a grain
Lime water 1,500 minims
M.

Every hour a coffeespoonful in a tablespoonful of iced milk. An ice-bag may be placed at the epigastrium. The quantity of milk may occasionally be increased. *N. Y. Medical Journal.*

How to Use Spartein.—This drug, old and well-known, so valuable and yet not popular enough, deserves more attention. Dr. Solis-Cohen admits the following instructive directions to his department of practical therapeutics, in *American Medicine*, Sept. 21, 1901:

Among the cardiac tonics and diuretics spartein occupies a high place, yet many physicians complain of disappointment in its use. Apart from the question of selection of cases, into which we cannot now enter, much of this disappointment must be attributed to faulty dosage and methods. To get the full effect of spartein, especially as a diuretic with bedridden patients, it is necessary to begin with comparatively large doses, repeated rather frequently. For example, ½ to 2 grains may be given hypodermatically every second hour for 3 or 4 doses; after which the drug may be continued by the mouth in gradually lessening quantity at increased intervals until in the course of 2 or 3 days the patient is taking but ½ grain 3 times daily by the mouth; and in the course of a week perhaps but ¼ grain 3 times daily, with occasional administration of 1 or 2 large doses. In the regulation of dose aud in-

tervals, both at the beginning and later, the effect upon pulse-frequency and cardiac force must be watched carefully to avoid either overdosing and underdosing. For walking patients who cannot be under skilled observation, equally large doses are not advisable. With these patients one should begin with ½ grain 4 times daily, and have the patient report daily. The dose should be increased or diminished according to effect, the point being to get the patient rapidly under the influence of the drug by the maximum dose tolerated, and then to prolong the effect by the minimum dose active.

Sweating of Tuberculosis.—The following has been found successful:

℞ Agaricine..... 7½ grains.
Dover's powder..... 113½ "
Powdered mallow } of each.. 60 "
Mucilage }
M. Make one hundred pills. From one to two to be taken at night.—*Pac. Med. Journal.*

A New Intestinal Antiseptic.—From the daily press we quote this telegraphic news item from Ann Arbor, Mich: Scientific men at the University of Michigan are eagerly awaiting the detailed results of experiments that have just been concluded by Prof. Frederick G. Novy, bacteriologist and professor of physiological chemistry and bacteriology. If, in medical practice, as good results can be obtained as were secured in the laboratory all such diseases as Asiatic cholera, typhoid fever, dysentery, and other intestinal troubles may be stricken from the list of human ills. What is believed to be an intestinal antiseptic has been produced by Dr. Novy, and in a series of rigorous experiments upon five students it has served to destroy all bodily poisons.

Night-Sweats of Phthisis.—An efficient remedy, of simple administration and free from unpleasant or harmful after-effects is still to be desired. Karl Dorn (*Deut. med. Woch.*, Oct. 24, 1901—*Med. News*) has used with considerable success a soap, preferably of linseed or olive oil, containing ten per cent. of formalin in solution. For children a five-cer-cent. preparation is better, because less irritating. The procedure is as follows: The body is smeared with the soap and then a brisk general massage is instituted, lasting for five minutes or more. The resulting lather is then sponged off and the skin thoroughly dried. This treatment is very refreshing to the patient and its constitutional effects can soon be noted in the improvement of appetite and the general condition. Care must be exercised in avoiding all mucous surfaces when applying the soap.

The Local Treatment of Gonorrhea.—Dr. E. O. Bardwell (*Med. News*, Sept. 21, 1901), under above title, as abstracted in the *Phila. Med. Journal*, states, that the use of strong injections is uncertain, unsatisfactory and dangerous and should never be attempted; at any rate, in a first attack and in a mild case, using injections or irrigations of more than ordinary strength can do no good and is very likely to be productive of injurious results. He advises the use of copaiba and oil of sandal wood separately or in combination, especially in the first stage of gonorrhea. When copaiba cannot be tolerated, the use of spirits of turpentine, two or three drops in combination with cubebs in an emulsion, taken largely diluted, has seemed to have a beneficial action. It is well-known that if the above drugs can be given in large enough doses that they do some good, but they almost invariably derange the stomach. There appears also in all these cases an undue acidity and concentration of urine that requires the use of a mild, bland, unirritating diuretic, especially in the first stages of the disease, and for this purpose ten to fifteen grains of citrate of potash will usually do good results.

(The advice to use copaiba and oil of sandal should be supplemented with the suggestion to order them in soft capsules; there is no better way of taking them than in capsules. And when they derange the stomach, order a 1 grain tablet of pure pepsin to be taken simultaneously with the capsule, and all will be well.—Ed.)

METRITIS.—Campbell, according to the *American Medicine* abstract from *British Medical Journal*, discusses at length the diagnosis and treatment of metritis. Of all methods he considers cureting the best. For the hemorrhagic form, recumbent position, hot douches and the administration of liquid extract of ergot, are used. Metritis seems to predispose to malignant disease since it has been found by successive curetings that a slight glandular endometritis may become a benign adenoma which degenerates into a malignant one and this is the first step toward cancer.

CREOSOTAL IN WHOOPING COUGH.—Politzer (*Nouv. Rèm.*, Nov. 24, 1900) advises the use of creosotal in whooping cough, and reports brilliant results from the employment of three drops of creosotal exhibited in a cup of milk three times a day.

The following formula (*Journ. Ophth. and Otology*) for the preparation of a pleasant creosotal emulsion is also given in a contemporary:—

R	Ol. amygd. dulc.	40 gram.
	Aq. destil.	45 "
	Creosotal.	20 "
	Pulv. acaciæ.	20 "
M.	Adde ad lib.	
	Aquæ.	15 "
	Spir. vini gall.	50 "
	Sacch. albi.	10 "

More simple and just as readily administered, is a 3 or 5 minim creosotal soft gelatine capsule. A child will swallow the small capsule when it may balk at a spoonful of ever so pleasant an emulsion. —ED.

TOXIC EFFECTS OF ACETANILID.—Francis T. Stewart (*Philadelphia Med. Jour.*, Sept. 7, 1901) remarks: Within the past two weeks I have seen two cases which prompt me to write concerning the danger of toxic effects from acetanilid when used as a dusting powder on abraded surfaces.

The first patient had sustained an extensive burn of the left lower extremity. I covered the raw surface with Thiersch's skin grafts, taken from the right leg and thigh, and asked an assistant to dress the right limb while I completed the left. Early the next morning the patient became cyanotic, collapsed and unconscious. On investigating the cause of such an alarming and unexpected episode I learned that the right leg had been copiously dusted with acetanilid.

The second patient was a baby, aged 4 months, suffering from intertrigo of the scrotum, buttocks and thighs. A neighboring physician advised a liberal application of the following powder. Calomel, ℥ ss; bismuth subnitrate and acetanilid, āā ℥ ii. The following day intense cyanosis depeloped. With the first case fresh in mind, the cause of the trouble was easily found.

Both cases reacted readily. I do not know of a fatality following the external use of this drug, but can conceive its possibility, especially if the patient be debilitated from age or disease.

In aseptic cases it has no place; in septic cases there are more efficient and less dangerous agents at our command.—*Pediatrics.*

THE USE OF GELATIN FOR CONTROLING HEMORRHAGE.—Joseph Sailor (*Therap. Gazette*, August 15, 1901) reviews the literature on this subject, which, together with his own experience, justifies the following conclusions: (1) Gelatin increases the coagulability of the blood, whether applied locally, taken by the mouth, or injected subcutaneously or intravenously; (2) applied locally it is usually harmless, and may, as Carnot suggested, aid in healing by improving the nutrition of the cells, although I regard this as doubtful; it may prove injurious by promoting bacterial growth, and should probably always have some antiseptic added to it; (3) injected subcutaneously or intravenously it is entirely harmless, and, when the technic is perfect, practically painless; the solution should be thoroughly sterile; the dose employed may vary from 15 to 45 grains of pure gelatin; (4) when administered by the mouth, from 15 grains to 10 ounces

or more may be employed daily; (5) it is of advantage in any local hemorrhage, such as epistaxis, hemorrhoids or injuries; (6) it checks certain forms of internal hemorrhage, such as hemoptysis, hematemesis, metrorrhagia, melena neonatorium; (7) it appears to be the best remedy at our command in the treatment of hemaphilia, and to be of great value in purpura hemorrhagica and in hemorrhagic forms of infectious diseases; (8) at present it appears to be contraindicated in one condition only, acute nephritis.—*American Medicine.*

For Chronic Diarrheas of Childhood.—

℞ Ammonium chloride... 1 to 1½ drachm;
Fluid ext. of senna..... 2 drachms.
Fluid ext. of xanthoxylum.. 6 "
Fluid ext. of licorice.... 4 to 6 "
Distilled water.....to make 3 ounces.

M. A teaspoonful exery four hours for a child two years old.

It is essential that a recent preparation of xanthoxylum be used.—Dr. J. P. West, in *Internat. Med. Magazine.*

Acute Rheumatism.—The N. Y. *Medical Journal* says of a paper under this title by Dr. W. W. Kerr, in *Medical News*, Oct. 5: It is a clinical article, and a general consideration of the subject from the present-day point of view. As to the ætiology of acute rheumatism, the author considers with approval the observations and experiments of Poynton and Paine. In twelve consecutive cases of rheumatic fever, these gentlemen have isolated a diplococcus which, when injected into the veins of rabbits, has produced polyarthritis, pericarditis, valvular inflammation, pleurisy, pneumonia, chorea and nodules; all the lesions were non-suppurative in character. The author regrets that, in a large number of text-books, the joint affections alone are regarded as local symptoms of rheumatism, while the cardiac, lung, and pleuric changes are described as complications. He points out that the inflammation of the pericardium, pleura, and other serous membranes is just as much a part of rheumatism as is the inflammation of the synovial membrane covering the joints. Referring to the use of sodium salicylate, he lays stress upon the importance of continuing the administration of the remedy for a length of time after all the symptoms have disappeared. In addition to the salicylates, an alkali, such as the citrate of potassium, in 20-grain doses, should be given, to maintain the alkalinity of the blood. The application of small blisters over the præcordia is advised for the cure of the cardiac leisons, and also as a preventive measure in all cases of acute rheumatism.

Therapeutic Action of a New Diuretic.—Destrée (*Bulletin General de Thérapeutique*, June 30, 1901), has studied the action of a new diuretic—agurine—which is a double salt of sodiotheobromid and sodium acetate. He draws the following conclusions: (1) Argurine is a good diuretic; (2) it is well borne on account of its mild character; (3) it acts in relatively small doses, its effects being manifested in the dose of 3 to 7 grains daily; (4) its effects are shown not only in the quantity of water eliminated, but also in the solid elements excreted by the kidneys; (5) its effects last many days, often a week after administration has ceased; (6) the elimination of phosphates in the urine is especially increased, and for this reason the drug must not be used when there is phosphaturia; (7) its effects are inconstant in renal affections and perhaps harmful.—*American Medicine.*

For Cholera Infantum.—Dr. W. Blair Stewart (*Internat. Med. Magazine*, July) recommends the following in cases complicated with nausea and vomiting:

℞ Calomel..... $1/10$ of a grain;
Powd'r of ipec. and opium $1/10$ " "
Bismuth subgallate..... 1 grain.

M. ft. pulv. One such powder to be taken every half hour or hour.

At the same time apply a mustard plaster (mustard, one part; flour, four parts, mixed with tepid water and white of egg) over the epigastric region, and keep it

there as long as it can be borne. Keep the child absolutely quiet and strictly avoid food, water, and liquids. A small piece of ice may be placed in the mouth, or, if the child is too young, the ice may be wrapped in a cloth and the child permitted to suck it. If vomiting still continues, teaspoonful doses of cold lime water may be found to relieve, but, if this fails the stomach should be washed out directly, or indirectly by forcing the child to drink a large quantity of hot water to which has been added bicarbonate of sodium (from 20 grains to ½ a drachm). Usually this will either be promptly vomited or retained, and will quiet the patient.—*N. Y. Med. Journal.*

Scarlet Fever.—An ointment containing one per cent. carbolic acid in vaselin will effectually control the itching of the skin in the eruptive stage of scarlet fever, as well as prevent dissemination of the desquamated epithelium. Ichthyol inunctions (10% or 5% in wool fat) though apparently less cleanly on account of the color and the soiling of linen, are sometimes even better, and are believed by some physicians to exert a favorable influence on the disease, especially in preventing renal complications.—*American Medicine.*

The Decline of Materia Medica.—With the rapid multiplication of chemical firms manufacturing compressed tablets and medicines ready to use, it naturally follows that prescription writing is becoming less a necessary part of the physician's armamentarium.

It is far easier and more convenient to dispense medicine from neatly labelled bottles than it is to bear in mind the doses, physiological action and incompatibilities of the various drugs of the pharmacopoeia, and indeed such knowledge is rapidly becoming unnecessary, at least so far as *dispensing* drugs is concerned.

The system is so nicely reduced now, moreover, that mental calculation may be very nearly disposed of. The physician can supply himself at comparatively small expense with medicines containing such convenient labels as: Migraine, dysmenorrhea, constipation, dyspepsia, coryza, cystitis, tonsilitis or menorrhagia tablets No. 1, 2, 3, 4, etc.

With the adoption of such a system it is but natural that the less ambitious, enterprising and scientific of the profession gradually lose what command of materia medica they may have once possessed, and in the slow process of evolution finally become mere machines in the routine practice of handing out pills without care or thought regarding the physiological action or individual dose of the ingredients.

As scientific medicine depends not only upon a thorough understanding of the physiological action of drugs, but upon the ability to arrive at a correct diagnosis as well, we believe that this ready-made-diagnosis-with-treatment-attached system is in danger of reducing many of the profession to the plane of mere pharmacal automatons, and in opening wide the doors to others of unscientific training who may never have acquired any further medical knowledge than that of the names of diseases.

The convenience and business acumen, therefore, of supplying drugs from the office, while it has many commendable features, is not altogether without its evil, and may become absolutely harmful.—Editorial in *Cleveland Medical Gazette.*

The Treatment of "Growing Pains" by Aspirin.—J. A. Hale (*Pediatrics*, July 15, 1901, p. 50)follows the most recent opinions as to the rheumatic nature of so-called "growing pains." He has found salicylic acid to be efficient, but often needed in doses that produce distinct toxic symptoms. Salicylate of sodium is objectionable for the same reason, but to a less degree. Both drugs are decidedly irritant to the stomach. Of the newer substitutes for these drugs aspirin has given very

satisfactory results, even superior to those of salophen, which is very much better tolerated by the stomach than either salicylic or its sodium salt. Aspirin is produced by the action of acetic acid anhydride upon salicylic acid. It undergoes little or no change in the stomach, but is decomposed in the smaller intestines, liberating the salicylic acid in a nascent state, and leaving the acetic acid to combine with alkalies present to form the beneficial compounds of sodium and potassium acetate.—*Amer. Journal Medical Sciences.*

Formalin in the Treatment of Lupus.—W. Scatchard (*British Med. Journal*, May 4. 1901, p. 1078) reports a case of lupus of the nose of five years' standing in which the application of equal parts of formalin (formic aldehyde, 40 per cent.) and glycerin, preceded by orthoform powder to lessen the pain, acted very happily. There were during the following year at or near the original lesion slight recurrences, all of which disappeared under the same treatment. If orthoform was applied about an hour before the painting, there was no pain. The resulting scar caused very little disfigurement.—*Amer. Journal Med. Sciences.*

The Iodide of Arsenic in the Bronchitis of Childhood.—R. Saint-Philippe (*Revue mensuelle des Maladies de l'Enfance*, July, 1901, p. 337—*Amer. Journal Med. Sciences*) refers especially to a type of bronchitis observed quite often among rhachitic or lymphatic children which he designates as emphysematous bronchitis. Apart from the usual signs of bronchitis there is marked dyspnœa, which is aggravated toward nightfall and by the slightest movement, but this is distinguishable from true asthma by the presence of dry or mucous râles. This form of bronchitis is developed usually by some infectious process aided by the diathetic predisposition. Under these conditions the bronchial catarrh induced by the infectious disease, such as diphtheria, influenza, typhoid fever, measles, whooping-cough, or bronchopneumonia, shows little tendency to resolution, and by its delay leads one to suspect the presence of tuberculosis. Most of these children affected with this tenacious bronchitis show the signs of the the lymphatic or scrofulous temperament. Some are flabby, indolent, and suffer from eczematous eruptions upon the face, from blepharitis, or coryza, with hypertrophy of the upper lip—in a word, the strumous facies. Others are pale, delicate, and have scrofulous or gouty antecedents; while a third class brings a new element into play in the close relation manifested between efflorescences of the skin and bronchitis, and almost all of these suffer from dyspepsia and gastro-intestinal autointoxication.

In such cases the author thinks that the iodide of arsenic is especially applicable. The iodine acts beneficially upon the diathetic condition as an alterative and depurative, and locally upon the circulation and secretions of the whole respiratory tract, while the arsenic supports and stimulates the entire organism. Numerous clinical observations bear out the value of this treatment. Mixed with food this drug is easily borne and is almost tasteless. It is given preferably in water or wine during the meal, or to young children in milk. It should not be given to children with disturbance of the stomach, lest it aggravate the trouble.

The iodide of arsenic is easily prepared provided the solution is kept cold to prevent the precipitation of hydriodic acid. The formula used is 30 centigrammes of iodide of arsenic to 30 grammes of distilled water. Of this 5 drops may be given at each meal, the dose to be increased by 1 drop morning and evening until 15 or even 20 drops at a dose are taken at each meal. This maximum dose should be continued for about a month, and then gradually decreased in inverse order to 5 drops again. After a rest of eight to ten days the course should be repeated in the same manner as before.

Book Notices.

A Treatise on Acute, Infectious Exanthemata. Including Variola, Rubella, Varicella, and Vaccinia, with especial reference to diagnosis and treatment. By William Thomas Corlett, M.D., L.R.C.P., London. Professor of Dermatology and Syphilology in Western Reserve University; Physician for Diseases of the Skin to Lakeside Hospital; Consulting Dermatologist to Charity Hospital, St. Alexis Hospital, and the City Hospital, Cleveland; Member of the American Dermatological Association and the Dermatological Society of Great Britain and Ireland. Illustrated by 12 colored plates, 28 half-tone plates from life, and 2 engravings. Pages viii-392. Size, 6¼ by 9¼ inches. Sold only by subscription. Price, extra cloth, $4.00 net, delivered. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry Street.

The reputation of the author leads the reader to expect a work of high order, in which he is not disappointed. The excellent plates might, with advantage, be multiplied. Indeed, the only criticism that can be offered by one not especially expert in dermatology, is to demand more, while admitting the general completeness of the book.

Human Physiology, prepared with special reference to students of medicine. By Joseph Howard Raymond, A.M., M.D., New York. Published by W. B. Saunders & Co., Philadelphia and London, 1901. 668 pages, 443 illustrations and diagrams.

At first thought, one may ask, "Have we not already enough text books?" Yet we must not forget that the individual author has the same right to pass into competition with those who have preceded him as has the individual physician to force his way into an already overcrowded profession. The student might as well buy this book as some other; it is well written and well illustrated and the author has not sacrificed the time-honored and convenient aarangement for the sake of appearing original. The paragraphs devoted to the functions of the ductless glands are fully in accord with modern discoveries without teaching as facts, what are still only hypotheses. It occurs to us in a brief examination of this book that it is a little clearer on some points, especially for review study by the practitioner, whose time is valuable, than others with which we are more familiar.

An International System of Electro-Therapeutics. For Students, General Practitioners, and Specialists. By numerous associated authors. Edited by Horatio R. Bigelow, M.D., Permanent Member of the American Medical Association; Fellow of the British Gynæcological Society and of the American Electro-Therapeutic Association; Member of the Phila. Obstetrical Society, Second edition. Revised and brought up to date, with several new departments embodying the most recent developments of the science. Edited by G. Betton Massey, M.D., Ex-President and Fellow of the American Electro-Therapeutic Association; Member of the American Medical Association; author of "Conservative Gynecology and Electro-Therapeutics," etc. Thoroughly illustrated. Royal octavo. Pages x-1157. Prices net, delivered, extra cloth, $6.00; sheep, $7.00; half-russia, $7.50. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry Street.

This book is a symposium, in which electro-physics and electro-physiology, electricity in gynæcology and obstetrics, nervous diseases, abdominal and thoracic diseases, and electricity in paediatrics and surgery are successively discussed. The large number of authors, and the exhaustive manner in which the various chapters (38) are treated by their respective authors, precludes a satisfactory review. It would obviously be impossible to expect agreement with every statement made by every one of this staff of writers, but we feel sure that the verdict of all who read this book will be in the highest degree favorable. It need not be said that the publishers have well performed their part of the task.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, DECEMBER, 1901. No. 6.

Leading Articles.

SOME POINTS CONCERNING THE MANAGEMENT OF GONORRHEA IN THE FEMALE.

By ABRAM BROTHERS, M.D., New York,

Associate in Gynecology, New York Post-Graduate School; Visiting Gynecologist, Beth Israel Hospital.

The diagnosis and management of specific urethritis or gonorrhea in the male are universally acknowledged to be simple matters—irrespective of the difficulties at times to be overcome in individual cases. In the female, however, these difficulties are much greater and more generally present. Whereas in the male the urethral canal is usually the first and only location of the infection, in the female other viscera become rapidly involved. In the male a slight urethral discharge immmediately excites suspicion of gonorrhea; whereas in the female even profuse discharges may be regarded as innocent in character. In the male the bladder is seldom affected; in the female—because of the shortness of the urethral canal—the bladder (at least the trigonal portion)—is usually involved. Although buboes and suppuration in testicles, prostrate glands and even the kidneys may occasionally supervene in the male, such pus-formations are of exceedingly rare occurrence; in the female, however, suppurative complications are of very common occurrence. Whereas it is easy in the vast majority of cases in the male, to eradicate the disease quickly and thoroughly, it becomes at times a hopeless task to accomplish the same result in the female.

Granted that from the clinical history, symptoms, and bacteriological examination the diagnosis of gonorrhea in the female has been made, what is the best course of treatment to pursue? In an acute case I believe, with the late Dr. Otis, that if such a woman were simply put to bed for several weeks, nature would effect the cure in a large proportion of the cases. As this is, however, impracticable under ordinary circumstances, we are obliged to individualize the location of the disease in each case and treat it accordingly.

Of course, the infection is ordinarily in the vagina, in the first place; but, in the majority of cases, the vestibule and urethra are rapidly involved. For the vulvo-vaginal tract I know of no better local germicide than potassium permanganate in ½ or 1 per cent. solution applied in the form of large douches with the patient on her back. For the urethra and bladder (in acute cases) I am strenuously opposed to all forms of local treatment. I believe that the urine saturated with drugs of the cubebs-and-copaiba type will accomplish more good and do less mischief than urethral applications of nitrate-of-silver or intra-vesical washings or topical treatments.

Unfortunately the uterine cavity is invaded by gonococcus in a too-large proportion of cases. I believe this to be chiefly true in women who have borne children, because of the gaping character of the os, and the absence to a greater or lesser extent of the internal os. At all events, my advice in the case of gonorrheal endometritis in the acute stage, is to leave these cases severely alone. At most, I would suggest rest in bed for a week with an ice-bag applied to the hy-

pogastrium. Do not think of intra-uterine applications of any kind, and much less of curettage, in spite of the directions given in some of our latest text-books. I make this positive statement advisedly, because I know of two cases of acute gonorrheal endometritis treated by curettage in the practice of very careful and able men: In one case the patient developed a temperature of 107 ° F.; in the second case (operated against my advice) the patient died.

Once the disease passes beyond the uterine interior, the complications which arise are usually of a purulent character, because secretions cannot readily flow back into the uterine interior at the cornual end of the Fallopian tube. Hence we meet originally thin pus in connection with salpingitis or pelveo-peritonitis; later we find pyo-salpinx, pus-ovary, pus collections in Douglas' sac. It may seem strange that I make the positive statement that many of these cases get well without surgical intervention, for the reason that thin pus (if not in too large quantity) may be absorbed. Hence, in recent cases of of gonorrhea, with the first suspicion of intra-peritoneal complication, put the patient at once to bed with an ice-bag over the lower abdominal region. And keep the patient in bed for weeks, if necessary, until every evidence of inflammation has subsided.

Should the fever persist, however, and, with it, tenesmus of rectum and bladder supervene, or local pain above Ponparts' ligament, and should a mass of a fluctuating character be mapped out, operation can no longer be opposed. If the fluctuation is posterior to the uterus in the median line, the probabilities are in favor of a localized intra-peritoneal abscess which can be readily cured by simple incision and drainage. Even a bulging vaginal mass laterally may be treated in the same way, although we know we are dealing with an adherent pus-tube. The cases, however, in which we question the possibility of the pus-tube being adherent to he roof of the vagina, and when we feel that the entire pus-sac should be removed, a laparotomy either from above or below should be done. If both tubes are distended with pus many operators remove the uterus at the same sitting, by vaginal pan-hysterectomy.

Of course, external complications, like buboes or suppurating glands of Bartholim, require operative intervention. Chronic cases of cystitis require intra-vesical local treatment or at least bladder-washings. Fissures left about the urethral canal require local applications of nitrate of silver. Chronic endometritis requires treatment by means of vaporization or curettage, although I am ready to confess that I never saw a persistent leucorrheal discharge of gonorrheal origin cured even after these methods had been used. I am satisfied, however, that the gonococcus was disposed of, and in one case, at least—that of a widow—I sanctioned re-marriage, being satisfied myself by curettage and subsequent baceriological examination that the elements of contagion had been sufficiently removed in spite of the persistence of leucorrheal discharge.

Treatment of Simple Chancre.—Hallopeau and Leredde (*Bulletin Général de Thérapeutique*, Jan. 30, 1901—*American Medicine*) recommends that the chancre be washed with hot sodium bicarbonate solution. All crusts and pus should be removed, and the surface cauterized with the following:

Alcohol, 60 per cent..... 2½ drams,
Carbolic acid..... 15 grains,

or zinc chlorid solution 1 to 10, every two days. The dressing should be completed by an application of iodoform, bismuth salicylate or bismuth subgallate. If phimosis exists, the patient should inject an antiseptic wash between the prepuce and the glans several times a day, and especially after urinating. For this purpose solutions of corrosive sublimate, 1 to 200, may be employed. These washings should be followed by an injection of liquid vaselin saturated with iodoform.

POCKET CASE THERAPEUTICS.

By A. L. Benedict, M.D., Buffalo, N. Y.

While emergent measures cannot be considered the best type of therapeutics, they are extremely necessary and should be studied with the utmost care, bearing in mind the needs of all sorts of medical and surgical possibilities and the convenience of the physician. The latter may seem a negligible factor, but theory must yield to practice, and it is better to have a compact though limited outfit which will always be present than a thorough equipment which is not easily portable.

We have been surprised at the number of physicians, especially homoeopaths, who do not consider the hypodermic case as a *vade mecum*. Even if water cannot be obtained, hypodermic tablets may be administered under the tongue and they will be absorbed almost as rapidly as from the cellular tissues. Injections, except in the direst emergency, should be at least relatively sterile; the skin should be scrubbed with alcohol, wood alcohol, gasoline, chloroform, ether, or at least with water.

All makes of hypodermic tablets are said to dissolve instantaneously, in cold water, if shaken in the syringe. We have almost always had the kind that do not. It is far better to dissolve the tablet in a teaspoon, boiling over a gas jet, candle, hot coal or even a match. The following is a fairly complete list of hypodermic medicaments:

Strychnine, nitrate or other salt, 3 milligrams. Less is inefficient to stimulate a marked case of heart failure,

Hyoscine, bromide or other salt, ½ to ¾ m.g. A full milligram is rather dangerous.

Apomorphine, chloride or other salt, 5 or 6 m.g.

Morphine, 10 to 15 m.g.

Atropine, ½ m.g., the average dose as a vasomotor stimulant. Two to four tablets may be given to relax in intestinal and biliary colic.

Potassium permanganate, 3 centigrams, for its somewhat doubtful action in oxidizing absorbed morphine. This dose may be doubled at first, and may be repeated every half hour for several doses. It is also wise to administer three or four tablets by the mouth.

Nitroglycerin, ½ to 1 m.g.

Digitalin, coniine, philocarpine, cocaine, or the Schleich mixture, compounds of morphine and atropine, and various other active principles may be added. This case can be and should be carried, always, even in full dress or bicycle costume.

The great trouble with most "ready-made" pocket case outfits is that so many compounds are used. If each bottle contains one substance, an almost infinite number of prescriptions may be extemporized from a small case, not to mention the possibility of varying the dosage. We have a vest-pocket case of four divisions, each holding two bottles fused at their bases. A few small envelopes may also be slipped into such a case, so as to add materially to its variety. A case for a coat pocket, containing ten vials of ten c.c. capacity and fourteen of four c.c. each, with a flap for powders and plasters, enables one to exercise quite a range of choice. It is impossible to suggest contents that will suit every one, and it is not a bad plan to use some drugs, such as hypnotics that are on trial, so that the contents of the case will vary from time to time. So far as practicable, drugs should be in tablets, to insure accuracy of dosage; but bismuth, bromides, potassium chlorate, etc., may be dissolved with sufficient accuracy from the knife point. A pocket knife is made with a spatula blade.

Chloroform, alcohol, mercuric chloride, bismuth subnitrate or subcarbonate, potassium chlorate, turpentine, carbolic acid, silver nitrate, 1 per cent., are fairly adequate for minor surgery and topical applications, not to mention the internal indications of most of this list. Hydrogen peroxide and a stick of caustic may be

added. If portability is the main object, it is well to omit drugs already represented in the hypodermic case. One of the bromides, ammonium chloride, chloralamid or some similar hypnotic, chloranodyne, possibly one of the older galenicals of opium, acetanilid or a similar antipyretic or rather antineuralgic, for the use of such drugs to control fever is not usually justifiable—salol, cannabis indica, calomel, ergot, a cathartic, in malarial districts, quinine—and the less quinine is used for other purposes, the better—are a good beginning on the list. For convenience and economy, some of the contents of the hypodermic case may be duplicated; an emmenogogue and various other drugs may be accommodated. A mustard plaster and a small strip of adhesive plaster, perhaps a few vaccine points and various powders, may be carried in the pocket case. An aspirating needle and six feet of rubber tubing, prepares the physician for a number of medical operations. A funnel can be found in almost every house; and ear, rectal and vaginal tips can be dispensed with in an emergency. Even high enemata can be administered, for the special rectal tubes often kink and, at best, they do not enter the bowel far enough to afford any material advantage over the mere introduction of the liquid into the rectum. An ordinary tube may be used for lavage, and the largest size that can be introduced is likely to clog in the attempt to remove poison from the full stomach, so that emesis must usually be employed for the latter purpose, after introducing water and removthe tube. This simple outfit is all that is absolutely needed for hypodermoclysis, as a teaspoonful of salt in a quart of water is a sufficiently close approximation to the five per mille saline solution. The hollow needle, after its introduction should be filled with the solution by the hypodermic syringe and care should be taken in making the union with the rubber tube to have the latter filled with water to its very tip. By using the weight of a column of water, six feet long, the patient being on a high bed, or brought to the edge of a stairway, aspiration may usually be practised, or, if it fails, at least no air can enter the cavity. This simple device may save a life in pneumothorax, the tube being pinched during inspiration. Sterilization by heat is practically always available in a house.

We shall not consider the surgical pocket case, except to suggest that it is almost always short of haemostates, and that the metallic catheter is for emergencis, better supplanted by the rubber instrument. With the latter the rubber tubing already mentioned, receives additional value.

Aconite to Relieve Vomiting.—Two to 5 drops of tincture of aconite in a little water every half hour until the pulse begins to weaken, will sometimes control vomiting due to irritability of the stomach. Aconite is contraindicated in cases of debility. The patient should lie flat on the back in order to best withstand the cardiac depression produced by the drug.—*Amer. Medicine.*

The Use of Thiosinamin.—Juliusberg (*Deutsche medic. Wochsch.*, Aug. 29, 1901; *Amer. Medicine*) finds, as did v. Hebra, that thiosinamin is a very useful remedy in cases of hypertrophic and keloid scars, scleroderma and allied skin affections, but that it has very little influence on lupus. He uses the drug, not in v. Hebra's 15 per cent. alcoholic solution, but according to Van Hoorn, in the form of a ten per cent. aqueous glycerin solution (thiosinamini, 10.0; glycerini, 20.0; aq. dest. ad 100.0), which he finds to be less irritating. The dose is one hypodermic syringeful (= 1 deg. thiosinamin) every other day into the interscapular region. He regards the local application of thiosinamin plasters and soap as less efficacious and more liable to cause irritation. Occasionally patients exhibit an idiosyncratic intolerance toward the drug, its use causing urticarial exanthema, or in larger doses a feeling of lassitude.

ECLAMPSIA GRAVIDARUM ET PARTURIENTIUM.

By J. Lindsay Portrous, M.D., F.R.C.S.E., of Yonkers, N. Y.

In the *Medical News* of February, 1893, a paper of mine was published on the above subject. In it I gave five varieties of this disease, as follows: (1) Hysteric; (2) epileptic; (3) uremic; (4) apoplectic; (5) microbic. At the time of writing that article I had not read or heard of the fifth variety, but shortly afterwards I read that two French physicians had found what they considered was the microbe of puerperal eclampsia. Before writing the paper I had a case so utterly unlike any eclampsia I had ever seen, and which would not respond to any known treatment which I adopted, I was forced to believe that a microbe was the chief factor to contend with.

The case referred to presented the following peculiarities: I saw the patient on a Tuesday, when she looked and felt perfectly well and expected to be confined in about a month. I examined the urine—specific gravity, 1022. There was no anasarca, and both kidneys and bowel performed their functions thoroughly. On the next day, at 1 A. M., I was informed by telephone that the membranes had ruptured *without* pain. I visited her at 7 A. M. She then had slight infrequent pains which continued till about noon when, suddenly without warning, she had a convulsion which lasted ten minutes. The twitching was very slight, there was no shivering of the eyelids, no frothing at the mouth, no pressing of the thumb on the palm. The face was at first pale, then became gradually purplish. The pupils were normal in size, but did not respond to light. The pulse rose to 98. Consciousness returned at once, not gradually, and she only felt slightly exhausted. At 1 P. M. there was another slight convulsion. I called in another physician, and we determined to deliver her as soon as possible, which we did. The child was dead. When the effects of the chloroform had passed away she felt comfortable. At 7.30 P. M. she had three slight convulsions in rapid succession. On the following day she seemed very comfortable. During the next night the nurse noticed frequent twitching in her sleep. At 7 A. M. I was notified that she could not be awakened. We tried to restore consciousness which, to the extent of an attempt to speak, we did. A pint of urine was withdrawn and found to be perfectly free from albumen. After numerous slight convulsions she died at 4 P. M. I cannot say that there were any symptoms which might be said to be peculiar to a microbic form of disease—but there was the absense of the well-known symptoms of the other four forms of eclampsia above mentioned.

I have had several cases of eclampsia since, but all had the distinctive feature of their particular variety. I have recently read some original ideas on this subject, the study of which is very interesting. The article I refer to is by Dr. H. Olephant Nicholson, and is based upon his observations of the therapeutic action of the thyroid gland. It is well known that this gland enlarges to a greater or less extent in nearly all pregnant women, and that it has been shown by Lange that the administration of thyroid extract greatly reduce that swelling. That of 25 pregnancies in which the physiological hypertrophy did not occur, twenty had marked albumenuria. The fact that the thyroid gland is generally enlarged in normal pregnancies, shows that an extra quantity of the secretion is necessary to meet the demands of increased metabolism. If, when the extract is given the hypertrophy diminishes, it is very evident that a certain amount of thyroid secretion is absolutely necessary in cases of pregnancy, and that without it in sufficient quantity a pregnancy cannot go on satisfactorily. Those of us who have had experience with thyroidin have noticed that it is a diuretic and thus may benefit the nephrites of pregnancy. Lange

noted that it did not greatly diminish albumenuria. Although Lange did not notice any improvement in albumenuria cases, others have.

Nicholson, in studying the relation of the thyroid gland to eclampsia, as seen in its bearing upon the pre-eclampsia symptoms, particularly emphasizes the peculiar type of odema seen in some pregnant women. The patient looks as if she had grown fat, and there is only pitting when prolonged deep pressure is made. There is extraordinary thickness of abdominal walls, caused by oedematous infiltration. In fact, the condition suggests a myxedematous condition, calling for thyroid feeding. Diminution of urine is also a pre-eclamptic sign. Albumenuria *without* a decrease of urine does not necessarily mean danger, but if towards the end of pregnancy the urine is much decreased in quantity, then look out for eclampsia. If, along with this symptom, there is high arterial tension, convulsions are almost certain to come. Nicholson takes notice of the involuntary twitching of the muscles (of the arms and legs more particularly) which often take place pre-eclamptically. Now these movements may be what Edwards called "fibrillar twitchings of the muscles," which he observed in a dog after having removed the parathyroid and thyroid glands. This plainly shows that when the thyroid glands are removed, or are over taxed, these functions must be continued in some way if health is to be maintained, and as thyroid feeding has proved so beneficial in myxedema its use in diseases showing symptoms of thyroidy inaction should be resorted to.

In eclampsia we have frequently great arterial tension and slow pulse. To alter these conditions we must apply remedies which will reduce the tension and quicken the pulse. Morphia dilates the arteries, reduces blood pressure, and is therefore beneficial in eclampsia *before* labor, but, if it is the case, as Haig states, that there is an "uric acid storm" at the end of pregnancy, something must be done after delivery to prevent the locking up of uric acid in the tissues and subsequent increase of it in the blood current. If to lower the tension and increase flow of urine is one object in the treatment of this disease, it seems reasonable that we should use thyroidin, which will accomplish both of these, and to do so successfully it is necessary to early recognize the pre-eclamptic sign. Nicholson puts great stress on increased tension, and strongly advocates the frequent use of the shymograph. After relating several cases successfully treated by morphia and thyroid extract, he gives the following suggestions:

(1) To fully and permanently release arterial spasms.

(2) To temporarily arrest general metabolism and in this way tide the thyroid gland over a period, during which it may recover its functions.

(3) To supply artificial iodothyrin (active principle of thyroid extract) to counteract certain symptoms due to its deficiency in the flow and tissues.

(4) To supply iodine for the elaboration of iodothyrin in the thyroid gland itself, and thus hasten its return to normal activity.

The above remarks may prove useful by drawing attention to the subject concerning which there are very few reliable data.

A Synthetic Laxative (Purgative).—The common vegetable cathartics depend for their activity upon the presence of oxymethylanthrachinons and particularly emodins. In their pure state, however, these substances are less active than the drugs from which they are derived. As the preparation of oxymethylanthrochinons from drugs would be expensive, Vieth had resort to certain synthetic compounds, which were tested upon cats. The one that was found most efficient was anthrapurpurin, the diacetate of which has been placed upon the name of purgatin. It is active in doses of .5 gram (7½ grains).—*Amer. Medicine* abstract from *Münchener medic. Wochensch.*, Aug. 27, 1901.

*PUERPERAL ECLAMPSIA.**

It is entirely safe to say that no purely obstetrical subject has been accorded more attention during the year than the symptom-complex, known as eclampsia. As to its etiology, writers are agreed upon a single point only, viz., toxemia. Beyond this there would appear to be considerable difference of opinion. If we are to be guided by the judgment of some, we should infer that the specific cause of eclampsia has been unquestionably isolated, and that any further search in this direction would only be a waste of time and energy. To such belong those who declare positively and unequivocally that urea or one of its synthetic compounds is the one great and primal cause of eclampsia. These observers declare that the teaching that the uremic state is always associated with casts and albumen is not only all wrong but positively dangerous as well. They assert that even in the presence of edema and headache, if no albumen be found, it frequently happens that the attendant pronounces his patient safe and free from peril. They contend, furthermore, that the toxemia of pregnancy, the pre-eclamptic state and eclampsia, are always associated with kidney inadequacy in so far as the absolute diminution of excreted solid elements is concerned; and that conversely, a return to the normal of the solid elements, especially urea or its congener nitrogen, is almost always curative of the toxemia of pregnancy, the pre-eclamptic state and eclampsia; and moreover that a due regard on the part of the medical attendant for the amount of urea excreted will be attended in almost every case with what would otherwise be the true eclamptic state. The reasoning of these observers would appear logical, convincing and conclusive, and yet, immediately in the wake of such reasoning, we are reminded by other investigators, within the last two months, that the urea theory of eclampsia has been entirely exploded, and that beyond the fact that eclampsia is consequent upon a toxin in the circulation as to the outcome of the state of pregnancy, nothing is or can be definitely known, at this stage of investigation, and they contend that in all probability the liver, skin and intestinal canal in many instances play an important part in the production of the toxin. To the personal knowledge of the writer, but a solitary observer has felt sufficiently sure of his ground to announce that the cause of eclampsia is clearly demonstrable on the post mortem table; and is equally positive as to the source of the toxin and considers it to be threefold; first, the placenta; second, the fetus; third, the alimentary canal. He maintains with others that the pre-eclamptic stage is caused by the presence of toxins in the circulation; the essential lesion of which consists of minute capillary thrombi with hemorrhagic infections, surrounded by tissue necrosis. This is demonstrated to be of the same character in the brain, liver, kidneys, lungs and spleen, and that the toxins produce the coagulation of the blood and thrombi, and when this occurs, eclampsia supervenes. While this view of the pathology of eclampsia may be fairly constant, it might be just as logical to conclude that the lesion described was consequent upon the eclampsia rather than that the eclampsia was consequent upon the lesion. Beside from toxemia it is generally conceded that loss of sleep, depressing mental emotion, an irritable uterus and an excitable nervous system may be either individually, or collectively, contributing factors in the production of eclampsia. The contagiousness of eclampsia has been mentioned by one authority only, who considers it a self-limiting infectious disease — contagion being airborn and affecting women in the puerperium only. In the matter of prophylaxis, we find much more unanimity of

* From the "Address in Obstetrics," by David S. Funk, M.D., of Harrisburg, Pa., read at the September, 1901, meeting of the Pennsylvania State Medical Society, abstracted from report in the *Phila. Med. Journal*, Oct. 19, 1901.

opinion, and the high ground is taken that eclampsia is largely a preventable complication, even more so than puerperal sepsis; and that prophylaxis presupposes the intelligent supervision of the patient from the earlier months of pregnancy, with a special reference to sanitation, food, etc.

Treatment.— The pre-eclamptic state, as evidenced by scanty urine, dizziness, headache and epigrastric pain, is to be met by milk diet, cathartics and diuretics and the ingestion of large quantities of fluids. In the matter of treatment of the attack, venesection is less extensively practiced than formerly and is esteemed of especial value in the plethoric cases only. The same may be said of veratrum veride, which has been so greatly extolled by those who were disposed to regard it almost in the light of a specific. Morphia and chloroform are both highly commended and, singularly enough, each is condemned in the most outspoken way by the advocates of the other; chloroform, because of its interference with the already greatly embarrassed respiration; morphia, because it paralyzes all the emunctories, except possibly the skin. Notwithstanding these objections to these agents, it must be conceded that in each of them we have a most valuable and powerful weapon for the control of the convulsion. Hypodermoclysis, enteroclysis and direct intravenous infusion are uniformly commended and advised, and can be used in conjunction with any of the other therapeutic measures, and, when time is afforded, should be used in every case of eclampsia. If the patient be at the term a full hot bath is esteemed serviceable in favoring uterine dilatation and as sedative to the greatly excited nervous state. Rapid dilatation, even by incision, according to Dührson, has still some advocates but would appear to be rarely practiced, and is being displaced by Cesarean section, as affording more real safety to both mother and child in cases in which emptying the uterus becomes immediately imperative. Sodium bromide and chloral hydrate in large doses per rectum, in conjunction with morphia and chloroform, are still in favor and are extensively used at home and abroad. Serum therapy of eclampsia is regarded as a problem of the future.

Eclampsia.—In eclampsia it is useless to wait as regards emptying the uterus, and, after seven months, George M. McCombs (*Albany Med. Annals*, Nov., 1901—*Med. News*) rapidly dilates under chloroform and extracts with forceps. Thus he saves the child. The mother he treats with blood-letting and saline solution, combating symptoms as they rise. For hemorrhage from placenta previa, he would probably pack until ready to operate quickly, then remove the packing, dilate and extract by version or forceps. Postpartum hemorrhage is always serious, and its correct treatment is by packing. After the birth he uses a small damp bichloride compress over the vulva covered by the regular napkin. This protects the entrance to the vagina, which is the abode of germs. He never uses the douche, as it washes away the natural germicidal secretions of the vagina. He uses chloroform guardedly and always gives ergot as the head is born; he then waits half an hour and finds that the placenta seldom adheres after this time. The curette is more opposed to asceptic surgery than is the douche, for it opens up new avenues of infection. As "dryness is an enemy of bacteria," he treats a septic uterus by wiping it out, and packing with dry sterile gauze, renewing it every eight to twelve hours. When the woman gets about he applies the abdominal bandage with a T-bandage and pad support to the vulva, and prescribes a tonic of strychnine. He prefers to move the bowels with Rochelle salts or Seidlitz powder, rather than with castor oil. The cord he cuts short and wraps in sterile gauze, then applies a four-inch gauze bandage several times around the abdomen and keeps it on a week.

*WHEN SHOULD THE OCULIST BE CONSULTED?**

By Fred. D. Lewis, M.D., of Buffalo, N. Y.

I believe that the importance of the eye in relation to the general health is sufficiently understood by most physicians. It has been said that men working in a particular line, after a time become cranks. This may be so, but it is the result of the evidence that has been presented to them, in that particular line of work, that has placed them in advance of their fellowmen, and their statements ridiculed to-day may be seriously considered at a later time. That all the ills that flesh is heir to have their origin in eye-strain would be an absurd statement, yet I believe that many of the troubles that are most perplexing and cause physicians the greatest trouble would respond more readily to the indicated remedy, or be cured without remedy, if the eyes were properly attended to.

Our patients have learned the importance of consulting a dentist at regular periods, in anticipation of trouble with their teeth, rather than waiting for cavities to be formed before they seek treatment. Are the eyes of so much less importance than the teeth that they must cry out for help by headaches or other troubles before an oculist is seen and consulted in regard to them? I think not, and I have a number of families now on my books who, when their children are 7 or 8 years old, bring them to have any defects corrected before their hard schoolwork begins. The results of this will be seen in the years to come, when these children will develop into stronger men and women, physically and mentally, than their schoolmates, who have been wasting nerve energy in the attempt to overcome an eye strain.

Of all the senses we possess, that of vision uses up the most nerve energy. The amount of nerve energy expended in overcoming a slight defect of the eyes during 12 or 15 hours daily, in the course of weeks, months or years is simply enormous. With this great waste, other organs may be deprived of the requisite amount of nerve force to conduct their functions. Thus, with a perhaps congenitally weak stomach, indigestion would result, weak kidneys might develop rheumatism through their inability to carry off the waste products, a heart of insufficient strength might manifest dilation, etc.

I go further than this and say that with eye strain the whole physical development of the child may be retarded. With a waste of nerve force during the growing period of the child, increased by the school work required during this period, is it not natural that the tissue building must be hampered, with the result of imperfectly formed bodies and less vigorous minds? Granting this fact, is that child not prone to fall a victim to prevailing diseases, and in consequence can it have a life so long as that of one not laboring under like disadvantages? I say no, and thus by neglecting to correct the error the child's existence is made less happy and its life cut short by perhaps years. I believe the time is coming, and I think we will all see it, when no advanced physician will take a case of any length of standing—such as indigestion, rheumatism, gout, chronic ovarian or uterine trouble—when it is not clearly indicated in the surgeon's sphere, without having the eyes examined first to see if they are not a leading factor in the cause of the trouble. Glasses are but a remedy, and, like all our other remedies, if needed they do much good and if not needed they do harm. However, there is this difference, unlike a drug remedy that is to act for hours or possibly days, their action is to extend over years, and in consequence should require more study and greater care in their selection. If this selection is a good one, the results are sometimes most surprising.

* Reprinted from *American Medicine*, November 16, 1901.

A few examples may illustrate my meaning:

Case I.—A few years ago a stranger who was spending his vacation in the Pan-American City called on me seeking advice in regard to indigestion. Being a stranger, he did not know that I was a general practitioner, so I referred him to a stomach specialist. The doctor gave him a test meal which on examination proved that the stomach was not secreting digestive fluid—no physical cause could be found to account for this so he sent him back to me to examine his eyes. The patient said he was a school teacher from New Hampshire, and used his eyes constantly, had no headaches, and as he expressed it, was not conscious that he possessed eyes. An examination revealed somewhat a high degree of astigmatism at unsymmetric angles. Glasses ended his indigestion without the aid of drugs of any kind.

Case II.—This patient was one of my brothers, but came under my care for a time during his absence from the city. The lady had suffered from rheumatism for some time, her joints were enlarged to almost twice the natural size, there was great difficulty in moving even for short distances and with the aid of canes; she had been treated by several physicians without benefit. The examination of her eyes revealed a high degree of hyperphoria, which was corrected. Later, the rheumatism gradually disappeared without the assistance of internal medication.

Case III.—The wife of a motorman came to me to relieve her headaches. I found a small amount of astigmatism, the correction of which stopped the headaches at once, and she reported to me after two weeks that she was sleeping better and feeling much more rested on awaking. Her husband went on duty at 11 o'clock each night and was in the habit of saying good-night to her on leaving the house; she always responded to his good-night until she got her glasses, but after that she did not hear him,

Case IV.—My own case is perhaps the most convincing of the necessity of correction of eye-strain that I have seen. In 1895 when on my way to Europe I stopped in Philadelphia for a few days, when I called on my friend, Dr. ——. In speaking to him he kindly offered to examine my eyes for me. I had no idea I had any trouble, as I never suffered headache, and could see perfectly for distance and reading, but I availed myself of the opportunity of having my judgment confirmed by a man of his standing. To my surprise he found astigmatism of unequal amount and angle and on prescribing my glasses said I might take them off when I went to bed and when I died. For six months after wearing them I noticed no difference, but after a year and two years I found I was doing more work and better work with less effort than I had ever been able to do before, and I now feel satisfied that had my eyes been corrected before I went to college I would have graduated with higher honors. I simply could not do the reading and study that my fellow students did. In my efforts to do so I would go to sleep. Nature could not stand the strain and drew the curtains.

The subject of this paper was suggested to me by patients that I have had referred to me on many occasions by opticians who could not make satisfactory refractions; the patients coming to my office remarking that their physician deemed it necessary that they have glasses had told them to go to an optician and be fitted. I hold that the optician has no more right to prescribe glasses than the druggist has to prescribe medicine.

ANTIHEMORRHAGIC DROPS.—*Bulletin Général de Thérapeutique*, July 15, 1901, recommends the following for controlling hemorrhage:

Tincture of hydrastis Tincture of viburnum	of each, 1½ drams
Tinct. of hamamelis Tinct. of horsechestnut	each, 3 drams

15 to 20 drops before meals in a little sweetened water.—*Amer. Medicine.*

THE AMERICAN THERAPIST.

A Monthly Record of Modern Therapeutics,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Editorial.

GONORRHEA in the female is a difficult proposition—usually far advanced before recognized and treated, and then so extended and serious that treatment is protracted. Our leading article this month, by a recognized authority, treats the matter completely yet tersely, and we feel sure thatthe reader will find it exceptionally illuminative and instructive.

* * *

THE POCKET CASE for emergencies is in universal use, and probably every case is as different from every other case as are the individuals that carry them. It is not an easy matter—in fact, well nigh impossible—to design and fill a portable case with everything that may be needed even daily. Most physicians, very likely, vary their outfits from time to time, in accordance with experience, and yet are never fully satisfied. Dr. BENEDICT, in this issue of our journal, covers the subject pretty fully, and we are inclined to think that his suggestions are worth considering and and utilizing in practice.

* * *

WE ARE reminded, by the way, of the fact that Dr. JOHN AULDE, the first editor of the AMERICAN THERAPIST, designed a Pocket-case to hold twenty-five medicaments; and taking this as a basis, Dr. AULDE wrote a very practical book called "Pocket Pharmacy," which was actually a system of medicine and therapeutics—in which the twenty-five drugs served to treat nearly every affection which a physician is called upon to treat. Aulde's "Pocket Pharmacy" was published by D. Appleton & Co., New York, and the interested reader can undoubtedly still procure the book from these publishers. The book became very popular some ten years ago, and it will still prove interesting and serviceable to every practitioner who carries a pocket-case.

* * *

ECLAMPSIA.—Our faithful contributor and friend, Dr. PORTEOUS, favors us this month with one of his ever-welcome contributions. He presents his subject in his usual manner, provoking thought and conveying information. The same subject, Eclampsia, having recently received attention by others, we have abstracted appropriately from two contemporaneous essays, and present the three contributions together. Perusal of the three will surely prove instructive—and that is the object of every line we publish.

* * *

IT IS TOO TRUE that the tooth that aches, the throat that is "sore," the little cut or bruise, and any of the other little "ills that flesh is heir to," receive attention; but the eye is neglected and abused. And yet how awfully important is eyesight to human perfection and happiness.

There is most excellent argument and applicable wisdom in the article, "When Should the Oculist be Consulted?" by Dr. FRED. D. LEWIS, which we reprint on another page.

Every general practitioner ought to impress his family patients continuously with the importance and advantages of having the eyes examined and nursed from infancy to maturity.

INFLUENZA.—(*Med. News, P. Formulary*)

℞ Dionin gr. ij 0.13
Salol gr. ij 8.00
Misce et fiant chartulæ No. xxiv.
Sig.—One powder every two or three hours.

Current Literature.

THE PNEUMONIA OF CHILDREN.—Dr. Caillé (*Post Graduate*, October) uses as a stimulant and heart tonic, camphor, strychnine, or nitroglycerin. Half a grain of camphor may be given in five grains of sugar, or the following prescription may be employed.

℞ Camphor..... 15 grains;
Oil of sweet almonds.. 11 drachms.
M. Five minims hypodermically.

Camphor half a grain, digitalis one grain, and benzoic acid three grains, combined, may be administered.—*N. Y. Med. Journal.*

SALICYLATES IN RHEUMATISM.—The treatment of rheumatic fever with salicylates (*American Medicine*, Oct. 5, 1901) has at times proved unsatisfactory to the physician, owing to the remedy not being pushed sufficiently. Salicylic acid should be given in doses of from 7 to 10 grains every 2 hours, followed by a glass of milk to avoid irritation of the stomach. It shonld be continued to the full physiologic effect, manifested by roaring in the ears, when it should be decreased, but not entirely withdrawn. Sodium salicylate should be given in from 10 to 15 grain doses every hour until a similar effect is produced, when it should likewise be decreased. A pepsin preparation is the best vehicle. Sometimes strontium salicylate may be used if the sodium salt is not well borne, though its action, as a rule, is not prompt enough. The "natural" salicylic acid (from wintergreen or willow salicin), and its salts should always be specified. For old or anemic patients, the "Ferro-salicylate mixture" of S. S. Cohen should be given. In this preparation, by the use of an acid solution of ammonium citrate as a solvent, and by taking care to stir in the tincture of ferric chloric slowly, drop by drop, the last thing in the mixture, a clear solution can be made, containing to each dessertspoonful a gram each (15 grains or minims) of sodium salicylate and the iron tincture. Glycerin may be used as an emollient, and oil of wintergreen as a flavor. An aromatic liquid preparation of pepsin may be added if desired.

TAPEWORM.—In the removal of tapeworm, 2 important points should be remembered. First, the patient is to starve for from 12 to 18 hours in order that the intestinal tract may be as free from food as possible before giving the vermifuge; second, a purgative must be administered in order to dislodge the worm while under the influence of the anthelmintic. A mixture of castor oil and chloroform is admirable for this purpose, as the chloroform assists in relaxing the grasp of the worm on the mucous membrane of the bowel. A teaspoonful of purified chloroform is sufficient, and such a dose can be given without danger to a patient otherwise in good health. Some army surgeons have given a tablespoonful of chloroform as a direct anthelmintic. If the head of the worm fails to come away, a high injection of hot oil or warm water will aid in its removal.—*Amer. Medicine.*

TAPEWORM.—A capsule which is used with usual success contains

Oleoresin Malefern.....	7 min.
Oil Erigeron	1 "
Castor Oil.....	8 "
Croton Oil	$\frac{1}{18}$ "
Chloral	3 grains

Starve patient all day, give one capsule at a time commencing at noon, and repeat as seems necessary and according to age and condition of patient.

TREATMENT OF HAY FEVER.—H. H. Curtis (*Medical Record*, July 13, 1901—*American Medicine*) makes a contribution to the treatment of hay fever, based on the administration of certain plants and flowers supposed to excite the disease. To a patient who was so susceptible that passing a florist's would bring on a severe attack of dyspnea accompanied by cyanosis, he began treatment by giving an infusion of roses; this enabled her to tolerate the

odor of that flower. Another patient who had an idiosyncrasy for ipecac was able to inhale the drug after it had been administered. These experiences led him to prepare a tincture and fluid extract of ragweed, which were distributed, and 34 communications were received. In 18 cases there was complete recovery; 4 reported considerable improvement, and 12 were negative. He concluded that about 60 per cent. of the cases dependent upon ragweed as an exciting cause may be immunized; and that in the majority of cases a preparation of ragweed is of great value in the treatment of hay fever.

Similia Similibus Curantur!

Antseptic Effect of Glutol.—Dr. Heinrich Mohr, of Bielefeld, Germany, in a paper entitled "Modern Treatment of Infected Wounds," published in *Die Medicinische Woche*, Berlin, June 10th and 17th, 1901, says that he has treated a large number of wounds of the most varying nature that were supposed to be infected, or showed distinct signs thereof, with glutol. In fresh and presumably infected wounds infection did not appear, even without other disinfectant measures; and the strikingly fresh, soft appearance of the edges of the wound or the flaps, and the absence of all irritation, were remarkable. Other measures, such as the use of mercurials, will prevent infection; but the irritation of the wound and its neighborhood is marked. Some ointments render the wound torpid and sluggish. The wounds treated with glutol, on the other hand, are characterized by healthy granulations. The results obtained favor Schleich's assumption that glutol has a lasting antiseptic effect, without injuring the activity of the cell, or interfering with the normal process of healing.

As an example Mohr instances the case of a knife-cut of the palm, which came to him bound up with a dirty rag four hours after the injury. He simply disinfected the surrounding surface, and filled the wound up with glutol. On changing the dressing after four days there was no trace of infection; the wound was fresh, the fissure was filled up with blood coagulum, due to oozing after the first dressing, and with no trace of decomposition. Though the most favorable conditions for the development of bacteria existed, the disinfecting properties of the glutol had sufficed to effect perfect asepsis.

In suppurating wounds more especially, the growth of fresh granulations is preceded by a stage in which the dry surface is covered with a yellowish-grey, fibrin-like coating of dissolved glutol, looking very much like an infection; but the general good health, the non-reaction of the surrounding parts, and the absence of other symptoms prevent mistake.

In ulcerations Mohr also obtained rapid disinfection. A torpid ulcer of the leg in a diabetic was thoroughly cleansed and treated with glutol; It soon looked better, had soft edges, and showed incipient epidermis formations; and in a few days it was thoroughly healed.

In deeper wounds suppuration ceased rapidly in most cases, the secretion became serous, the wound dry; then appeared the above-mentioned coating, and ultimately fresh granulations sprang up. Thus after extirpation of tubercular and suppurating lymphatic glands there was only a slight serous secretion on the third day; three days thereafter the cavity was dry, and fresh granulations had appeared on the dull coating in places.

Ichthyol Baths.—It appears that we must add to the other therapeutical actions of ichthyol certain prompt and decided effects upon the blood. Schütze (*Deutsche Medizinal Zeitung*, 1902, No. 32; *Fortschritte der Medicin*, July 22) has been using ichthyol baths in various forms of anæmia, in gouty conditions, and in diabetes, and he has constantly observed that after the bath the amount of hæmoglobin in the blood was increased from twenty to forty per cent., and that the number of the red corpuscles rose by from

a million to a billion and a half. This effect was often recognizable after three baths, and always after fifteen or twenty, but the author has never witnessed it after ordinary warm baths. In a diabetic, hand in hand with the increase of hæmoglobin there was a reduction of the amount of sugar in the urine from 1.3 to 0.24 per cent. The blood examinations were always made twenty-four hours after a bath, so that the erythrocytosis due to a warm bath had not to be taken into account. To a bath of about sixty-two gallons he adds rather less than two ounces of ichthyol. The temperature of the bath is 95° F., and its duration is from ten to fifteen minutes.—*N. Y. Med. Journal.*

Orthoform Lozenges to Mitigate Odynophagia.—Dr. Solomon Solis-Cohen (*Amer. Medicine*, Nov. 9, 1901) reports as follows:

For the temporary relief of the pain attending inflammatory and ulcerative affections of the throat, orthoform applied in various ways is probably the best agent now at our command. For two years past the editor of this department has been making use of lozenges containing each from ⅛ gr. to 1 gr. of orthoform, in cases of acute and subacute sore throat (tonsilitis, pharyngitis, etc.), whether of rheumatic or other origin, and in cases in which pain in swallowing has been caused by ulcerative or infiltrative conditions involving the epiglottis and arytenoid eminences. In some cases adrenal extact has been used simultaneously. This has given great relief, as a rule, rendering it possible to feed the patient with comparative ease. Especially has the benefit been marked in cases of tuberculous laryngitis in which the use of orthoform in lozenges ten minutes before meals has permitted the patient to take food, if not without any pain, yet with a minimum of discomfort. The advantage of the lozenge over other forms of application is that the patient may himself make use of the analgesic agent. The freqnency of application varies with the degree and nature of the relief gained.

Quinine in the Treatment of Puerperal Fever.—There have been some indications lately says the *N. Y. Medical Journal*, of a disposition to return to the use of quinine in a number of conditions in which its employment had been superseded, and puerperal fever seems to be among those conditions. Aufrecht (*Therapeutische Monatshefte*, 1901, No. 5; *Centralblatt für Gynäkologie*, Sept. 7) advises that in every case of puerperal endometritis the uterine cavity be irrigated with a solution of carbolic acid, and then quinine administered subcutaneously. The irrigation is effected through a glass tube as large as the little finger, provided with two small openings and deeply grooved longitudinally on the outside. The solution, of the strength of two and a half per cent., should be from 82° to 86° F. in temperature, to prevent collapse. The injections of quinine are generally to be given once a day for three consecutive days. One part of quinine hydrochloride is dissolved in thirty-four parts of warm water, and a portion of the solution containing seven grains and a half of quinine is injected into the side of the abdomen.

Guaiacol Externally to Reduce Fever.—George Duffield, in a resumé on recent progress in therapeutics (Harper Hospital *Bulletin*), recommends pure liquid guaiacol, to reduce temperature in typhoid, pneumonia, and where other means are without result or contraindicated. He gives the following *modus operandi*:

The part that is to receive the application, if it be typhoid fever the right iliac fossa is best, if a lung is affected the portion over the seat of the inflammation is best adapted. The patient is placed between blankets.

First the place is well washed with soap and water, then it is dried with a soft towel. Alcohol is then rubbed over the part and when dried, the pure guaiacol is dropped on the skin and gently rubbed in drop by drop with the tips of the fingers until 5 or 6 or 10 drops have been ap-

plied over an area of 3 or 4 inches. The part is then covered with cotton wadding and oil silk. Soon the patient breaks into a delightful perspiration, and the temperature begins to fall immediately, the fall depending somewhat upon the amount given. It is best not to reduce the temperature below 98° as there is danger of chill and symptoms of collapse. The temperature falls steadily for two or three hours, and the lasting effect of the guaiacol is often marked, the temperature remaining below the danger point, 103°, frequently for 12 to 20 hours, which effect cannot be had with baths in whatever way given.

The reduction of the temperature by the external application of guaiacol is made by the reflex action on the heat center in the brain through the peripheral nerves of the skin.

I have frequently noticed a fall of 5° to 6°, the temperature not rising thereafter above 101° during the remainder of an attack.

I believe this drug as above administered hastens the favorable termination of cases suffering from typhoid fever. You have but to try it to obtain the same good effects that I have always had.

The Treatment of Acute Albuminuria after Scarlet Fever.—Dr. Otto Maier (*Post-Graduate*, October) adopts the following treatment: One hot bath every day; milk and ice cream diet.

℞ Pilocarpine..... 1 grain;
Infusion of digitalis.. 3 fluid ounces.
M. One teaspoonful every 3 hours.

℞ Calomel..... 2½ grains;
Powdered jalap..... 4½ "
M. ft. pulv. One to be taken twice a week.

The Tretment of Malarial Fevers.—At the Panhellenic Medical Congress, Dr. A. Tselios (*Gréce médicale*, May and June) stated that, in his own experience from the observation of many cases, methylene blue combined with quinine sulphate or hydrochloride succeeded best of all in bringing about the most rapid cure of the intermittent attacks. Dr. D. Stephanopoulous stated that in intermittent fevers, both recent and old standing, with enormous splenic enlargement, and unaffected by quinine, iron or arsenical preparations, a preparation containing belladonna, iodoform and quinine had a most efficacious action.—*N. Y. Med. Journal.*

Ichthyol in the Treatment of Erysipelas.—Fresh illustrations of the therapeutical value of ichthyol are frequently cropping up. Among the more recent, we may mention Eschle's use of the drug in erysipelas (*Heilkunde*, 1901. No. 6; *Centralblatt für innere Medicin*, Sept. 28). He applies a thin layer of wadding, described as varying in thickness from that of a spider's web to that of cambric, and paints it with undiluted ichthyol. Great alleviation is at once felt, especially of the sense of distention. In some instances the painting is repeated on the third day. The wadding dries and drops off, leaving a sound, rosy skin. Certainly no treatment could be simpler.—*N. Y. Med. Journal.*

The Topical Use of Alcohol in Gynæcology.—We may not readily arrive at the modus operandi of alcohol, applied to the abdominal wall and within the vagina, in curing or mitigating inflammatory affections of the endometrium, the perimetrium, the parametrium, and the uterine annexa, but gratifying success is reported in a Munich thesis (summarized in the *Centralblatt für Gynäkologie* for September 28) by Dr. S. Schmid. Over the sides of the abdomen, as far up as the naval, he applied compresses moistened with dilute alcohol, ranging from sixty per cent. at first to ninety-five per cent. Evaporation was prevented by a gutta percha covering, and the compresses were renewed three times a day. In the vagina he used tampons saturated with a thirty-per-cent. dilution of alcohol. The treatment was intermitted during menstruation. Antiseptic irrigations, rest in bed, massage, and an unirritating diet were also employed.—*N. Y. Med. Journal.*

Book Notices.

Diagnostics of Internal Medicine. By Glentworth Reeve Butler. A.M., M.D., Brooklyn. Published by D. Appleton & Co., New York, 1901. 1059 pages, including index, 5 colored plates, 246 illustrations and charts.

This is a most excellent and exhaustive work, the only topics which we could suggest as deserving more attention being the Roentgen rays and auscultatory percussion. We regret that the English spelling of such words as colour has been employed, also that Greek adjectives are generally employsd with the Latin termination *-al* as well as their own *-ic.* This, however, is still in accordance with common usage but the syllable *-our* is neither justified by derivation nor American custom. This book has been severely criticised, in some quarters, because regional diagnosis is taught by means of shapely female models rather than by semidiagramatic illustrations of the male body. The author maintains that he has but followed the modern custom, and it seems prudish to object to the convenient and business-like method of employing artists' models, especially as the book itself is intended solely for the use of those who should see nothing but the scientific import of the picture.

Libertinism and Marriage. By Dr. Louis Jullien (Paris). Surgeon of Saint-Lazare Prison; Laureate of the Institute, of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglas. Size of page 5½ by 7½ inches. Pages v-169. Extra cloth, $1.00 net, delivered. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry Street.

There is something about the style of this work which constantly suggests that the author is taking a low view of morality, yet, on re-reading the objectionable passage, we find that while its tone may be cynical and flippant, the statements made are correct and the conclusions such that we must agree with them. It is difficult to classify this book; it presents nothing new in diagnosis—indeed, it concontains little that is properly diagnostic, though much that will help the physician as a social detective; the treatment to which allusion is made, is not always the most approved; the matter is only occasionally medico-legal, it rather discusses this unpleasant side of human life from the standpoint of a shrewd, politic, cynical, yet always honest and honorable, physician. It is very readable, its case-reports, if a trifle suggestive of lay stories of adventure in forbidden fields, are practically instructive, and the book should be read by every physician, especially the one inexperienced in the ways of a wicked world.

Essentials of Physiology. By Dr. Sidney P. Budgett, St. Louis; published by W. B. Saunders & Co., Philadelphia and London, 1901. 233 pages, including index; 37 illustrations. Price, $1.00.

This is one of the familiar blue series of of quiz compends. While it is the habit of teachers and examiners to decry the use of such condensed sources of information, it is obvious to the unprejudiced that if there is any intrinsic evil in them, it is but an expression of a similar fault in our present methods of education. While there is not much opportunity for the display of originality in such a work, the author has performed his task well and the publishers have maintained their established reputation. The review of the carbohydrates impresses us as especially good.

The Practical Medicine Series of Year Books, edited by eminent specialists and teachers under the general editorship of Gustavus P. Head, M. D. The Year Book Publishers, 40 Dearborn St., Chicago, Ill.

We have received the first two volumes of this new publication: General Medicine, by Frank Billings, M.S., M.D., and General Surgery, by John B. Murphy, M.D. The scope of the series is comprehensive, and judging by the first two volumes it will cover the field in unexcelled form. The reader will do well to write the Publishers for full description.

The American Therapist.

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WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Leading Articles.

*SCARLATINAL NEPHRITIS AND ITS TREATMENT.**

By Dr. FRANCIS HUBER.

In the treatment of scarlet fever cases the parents should be given to understand that the physician's duties are not terminated when the rash disappears, the temperature subsides, and throat, glandular or ear troubles have been relieved. During the stage of desquamation the great danger is that of a complicating nephritis.

As a routine plan the urine ought to be examined daily. Rest in bed should be insisted upon, particularly in mild cases. An even temperature (not over 72°) should be maintained whenever possible; flannels, light or medium, should be worn according to the season; a fluid diet kept up and water given at regular intervals.

The failure to observe proper precautions is due in some cases to neglect or ignorance, in other instances mild cases are apt to be regarded as "scarlet rash," so called, and therefore supposed to be free from the danger of kidney lesions.

If the case be seen at the beginning, with scanty and high-colored urine, plain or carbonated water, with or without small quantities of bitartrate of potash or other saline given at frequent iutervals in small amounts will soon increase the flow and abort the trouble.

The morbid substances circulating in the blood may be eliminated through the kidneys, the skin or the intestinal tract. It should not be forgotten that there is a marked antagonism between the functions of the skin, the bowels and the kidneys; great activity on the part of one, lessens the secretions by the others. Too often this is forgotten, and prolonged sweating, brisk purging, etc., are practised at one and the same time; of course the result is disappointment.

In the acute inflammatory condition of the kidney, the result of the toxins of scarlet fever, with or without edema, the organs are engorged with blood and the tension in the vessels is increased; under such circumstances no direct irritant to the renal tissues should be administered. The indication is to relieve the engorged capillary vessels of the glomeruli, to restore the renal secretion without adding to the congestion. This can be accomplished in a physiological way. The flow is best favored by a liberal use of water, with or without cream of tartar or the vegetable salts of potash. The latter are very apt to upset the stomach; if so they must be discontinued.

It is contended that the fibrinous plugs filling the tubules are dissolved by alkaline urine. For this reason the use of the vegetable salts of potassium is favored by many. As a matter of personal experience, water in the beginning seems to act best; later on salines may be added. If the oliguria be pronounced or uremia threatening a normal salt solution, temperature 105° to 110°, may be introduced high up in the rectum through a colon tube (enteroclysis) The water will be absorbed, the vasomotor constriction is lessened, the toxines are diluted and their expulsion is favored by the increased eli-

* Abstracted from an article published complete in *Pediatrics*, Dec., 1901.

mination of fluids through the natural channels.

Many favor the subcutaneous use of water by the method of hypodermoclysis. with this the writer has but little practical experience. He has seen cases in convulsions, in coma, etc., do well by giving water in small and frequent doses per mouth with or without colonic flushings.

Digitalis is frequently employed. Aside from its irritant effects upon the stomach its use is contraindicated, as one of its alkaloids (digitoxin) is a decided irritant to the kidneys.

Furthermore digitalis increases the force of the pulse while it diminishes its frequency; at the same time the vessels are contracted. In scarlet fever the heart muscles are weakened, the blood tension is increased and the renal vessels are already engorged; digitalis, consequently, ought not to be employed in acute cases.

Calomel in fractional does (gr. 1-20 to gr. 1-10) every hour serves a useful purpose. It acts as a sedative to the stomach, is diuretic, has a laxative effect and finally reduces the arterial tension. It may be continued for days and days; only exceptionally is its use followed by stomatitis. The existence of a prior ulceration or follicular stomatitis is of course a contraindication to its employment.

The aluminum carbonate in small, repeated doses is useful in cases of severe dyspnea or threatened pulmonary edema, provided the stomach is not irritable. Dry-cupping of the chest may be employed at the same time. Strychnine is an excellent heart tonic in these cases and may be given subcutaneously or per mouth. Later on the anemia requires iron, either the tr. fr. chlor. or syr. fer. iodidi in proper doses. The unpleasant taste of the latter is best covered by syr. rub. idaei.

If convulsions occur hot-packs, chloral per rectum and salt water irrigations are to be employed.

Water may be administered in small quantities per mouth in addition to the saline solution per rectum. In coma the subcutaneous use of sodium caffeine benzoate in good doses braces up the heart, arouses the patient from stupor and sets up diuresis.

Uremic blindness, whether functional in character or due to retinal inflammation, disappears as the nephritis subsides. Renal hemorrhages are best treated by hot applications over the loins, mustard plasters and absolute rest. Gallic acid is advised, but its taste is objectionable. Suprarenal extract or its alkaloid, adrenaline, might be tried.

Hydrothorax and empyema require appropriate treatment. It is surprising how quickly the amount of urine increases when the intrathoracic pressure is relieved. The anorexia incidental to the disease and the nausea due to the renal lesion makes the question of nutrition one of difficulty. Only small quantities of liquid food at frequent intervals are to be allowed. Broths, clear soups, equal parts of milk and oatmeal water in 3 i doses may be tried and the quantity increased as the digestion improves.

Though aware of the fact that alcohol is contraindicated in nephritis in bad cases with frequent vomiting and dry tongues, etc., 3 i doses of cold champagne and ice given every ten to thirty minutes have tided the patient over the danger point.

Hot packs or hot air baths may be advantageously used when the edema is marked, the dyspnea excessive, or pulmonary edema is impending or present.

To recapitulate, as the danger of nephritis is greater during the stage of desquamation, the patient ought to be kept under medical observation for at least three or four weeks. The urine must be examined daily or at least every other day during this period. The routine treatment consists in rest, fluid diet (milk diluted with lime-water, oatmeal water, etc., broths and clear soups). Water in small quantities at regular intervals, with or without salines, should be given. The temperature of the room should be about

72° when possible. Flannels should be worn; in mild cases the above will be sufficient with the addition of fractional doses of calomel four times daily.

If severe headache, nausea and vomiting be present small doses of calomel may be given hourly. Liquid must be given 3 i doses every five to fifteen minutes until stomach can take more. Coma or convulsions require energetic treatment, as hot-packs, high saline injections, brisk purging, oxygen, caffeine subcutaneously, and the like. Even in coma and when the convulsions have ceased, 3 i doses of water should be given at frequent intervals. The other uremic manifestations yield readily to methods described above. Though the symptoms are frequently alarming, yet if judiciously treated, the tendency is to recovery.

Desperate cases frequently recover. Patients with repeated convulsions or suppression or who by actual measurement may not secrete more than 1 or 2 ounces per day and in whom coma has persisted for twenty-four to thirty-six hours, have been saved despite the unpromising character and apparently fatal prognosis.

A word as to the management of the stage of convalescence. As long as albumin appears in the urine the patient ought to be kept in bed, or, if intractable, at least be confined to the house, in an even temperature, avoiding exposure or a display of too great muscular activity.

The anemia must be combatted by means of light nutrition, food and iron internally. The functions of the bowels may be regulated by the use of salines or calomel. The myocardial weakness is to be treated by rest and strychnine in appropriate doses. The diet allowed must be easily digested and light in character. Plenty of water, a moderate amount of lemonade or carbonated water may be given.

A failure to observe such necessary precautions in this stage is largely responsible for many a chronic nephritis in later years.

*THE TREATMENT OF PNEUMONIA IN CHILDREN.**

By GEORGINA GROTHAN, M.D., St. Paul, Neb.

This subject has been chosen on account of the frequency of this disease and the often lamentable outcome due to its mismanagement. Not that the treatment of acute croupous pneumonia in children should differ strikingly from that in adults, but its diagnosis and termination have their own distinct characteristics.

This paper for practical purposes, as it concerns itself mostly with treatment, will make no special distinction between acute broncho and croupous pneumonia, remembering that during the first two years the great majority of cases, or 75 per cent. according to Holt, of primary pneumonia is catarrhal, as also are secondary pneumonias following the infectious diseases throughout childhood. However, it has seemed that la grippe is an exception to this rule. After this disease most of the cases have been of the croupous variety; we find this, too, in the majority of primary cases after the age of three years. While two forms of inflammation are separate and distinct, yet there are seen many cases which partake of the characters of both, and it is with difficulty that they may be classified. It is frequently seen that both varieties may be present in the same case at the same time. These mixed forms are observed during the second and third years, but after that and during the first year the types are more distinct and well marked. Throughout the latter part of winter and during the spring months, especially April, this disease is so frequent that when called to see a child suffering from high fever and rapid respirations, it is well to suspect pneumonia, although it must be understood that very little catarrhal affection of the respiratory tract should not be considered as such. During this time of year, when a child suffers

* Read before the Nebraska State Medical Society, Lincoln, Neb. Reprinted from *The Medicus*, November, 1901.

from one or more convulsions, we should not be in too great haste to assure the parents that the child will be all right the next day, after administering an emetic and a purgative, but rather warn them that convulsions are very frequently the beginning of pneumonia, which may not manifest itself markedly for from twenty-four to seventy-two hours. Chills, or even a cold state, are seldom present in children as the initiatory symptoms of the disease, but, on the other hand, gastro-intestinal disturbances are frequently observed, especially in infants. Sometimes tenderness over the abdomen and diarrhea, but more often nausea and vomiting, are the first indications of the disease. Cerebral symptoms, as before mentioned, are marked in many cases, more especially in lobar, less so in broncho pneumonia. Late convulsions are more frequent in the latter disease, especially those cases complicating pertussis. Often the cerebral symptoms are so prominent that the child is treated for meningitis throughout the whole course of the disease without the true nature of the malady even being suspected.

We cannot, in children as in adults, depend largely upon physical signs and symptoms for diagnosis, especially in the beginning; even cough may be slight or absent, in this respect resembling the pneumonia of old age. From this it is seen that we must depend largely, for diagnostic purposes, upon exclusion and generalization, rather than rely upon pathognomonic characteristics.

As to treatment of pneumonia in children, the first thing we should learn is to avoid too much medication, thereby lessening the patient's chances of recovery. For the sake of better understanding what we wish to accomplish it may be well to classify the treatment under different headings. The hygienic treatment is of first importance, although it almost invariably receives too little attention from both the physician and the attendants. While very little can be done for the disease, much can be done for the patient in the way of hygiene and careful nursing, many mild cases requiring no other treatment. The child should, of course, be placed in a large, well-ventilated room where he does not come in contact with drafts and cold damp air. The patient should be kept in bed, no matter how mild the case. It is the practice of well meaning friends and curious neighbors to crowd the sick room, but as the patient needs all the oxygen that can be procured, this unnecessary vitiation of the air should positively be prohibited. One attendant is amply sufficient, and when not engaged that one may better be in an adjoining room where the patient can be watched. A frequent change of position is necessary, no child being allowed to lie for any great length of time on the back; the bedclothing should be warm, but light.

As to local applications, if there is considerable pain in the beginning, it may often be relieved by the application of a mustard paste, but later in the disease it has been our practice to apply a flannel fitting well around the chest, saturated with equal parts of turpentine and lard, once or twice a day, and we have had no reason to regret the use of this simple remedy. Over this flannel should be placed a cotton jacket, covered with oiled silk or some impervious material. Some of the text-books, and even modern ones, recommend the application of hot flaxseed poultices. This practice must be looked upon as a relic which should long since have fallen into disuse, and especially so when such applications are made continuously.

During the first twenty-four or forty-eight hours but a small quantity of food, if any, should be taken. Indeed, throughout the disease less food and more water should be given. In many cases the food should be diluted and partly digested. This, too, must be given at regular intervals, never oftener than two hours, usually three to four hours apart. Milk is the best food, when it can be taken. In re-

gard to medicinal treatment, certain fixed indications are required, and can usually be depended upon. In the first place, it is well to remember that a number of very mild cases require very little medicine beyond the cleaning out of the gastro-intestinal tract, and the maintenance of excretions.

The temperature, so long as it does not exceed 103° or 104°, has but little or no bad effect upon the patient and needs no special attention. Should, however, hyperpyrexia be a feature, that is, temperature of 105° or over, it is best controlled by the application of cold to the head, and cold sponging, generally avoiding the application of water to the chest. In this day of coal-tar products their use in pneumonia cannot be too strongly condemned, and they are, to my mind, responsible for the majority of deaths occurring from primary pneumonia. This class of drugs interferes with oxygenation and elimination, produces fatty degeneration and granular cell destruction. This, together with their depressing effect upon every vital function, should place these antipyretics beyond the thought of administration in pneumonia.

When a case of pneumonia is seen early, the gastro-intestinal tract needs our first attention. This is best cleared out with small doses of mild chloride, associated with an intestinal antiseptic, of which guaiacol carbonate is perhaps the best. In a disease of general infection like pneumonia, thorough elimination and enteric antiseptics are of primary importance. For this purpose two remedies may and should be continued until recovery is well at hand. Salicylate of sodium, in rather small doses every two hours, for its cholagogue and antiseptic effect, and aromatic fluid extract of cascara sagrada, are the two drugs to which we refer. Over twelve hours should not pass without a free bowel evacuation. The use of normal salt enemata once or twice a day should not be neglected if bowels become sluggish in action.

The kidneys are next in importance. The irritation of these organs by concentrated urine loaded with toxines must be prevented by the free use of liquids and the administration of a non-objectionable diuretic. Here we have liquor ammonii acetatis, slightly alkaline, made fresh daily and good doses given every two hours. This is the remedy par excellence, and will never disappoint those who employ it. Spiritus etheris nitrosi is also sometimes indicated. Stimulants should in all cases be given from the first; or rather, *the* stimulant, which is strychnia sulphate, must be given first, last and all the time, in rather small doses. To a child one year old 1-300 grain is administered every three or four hours, and oftener for a short period if needed. Later in the disease alcohol may possibly be combined with strychnia to bridge the patient over for a short time, but if strychnia has not been neglected, this will scarcely be necessary.

As for direct cardiac and respiratory stimulants, these, as a rule, are not needed. Should indications for their use be manifest, reliable preparation of digitalis for the former and belladona or atropia for the latter are about the only remedies of any avail.

Sudden cases of general collapse, which are apt to come on at any time in bronchopneumonia, may be successfully combatted by the use of strychnia and nitroglycerine hypodermatically. Sometimes nitrite of amyl for its almost instantaneous effect and the continuous use of inhalation of oxygen are indicated. The hot mustard bath is valuable in those cases of cardiac or respiratory failure with cyanosis, cold surface, rapid pulse, respiration, and extreme nervousness. The child is placed in the bath at a temperature of 100°F. and the temperature gradually raised to 105° or 110°, if desired. The bath should usually not be continued longer than ten minutes, and repeated in an hour if thought necessary.

To combat nervous irritability and sleeplessness, the application of cold will suf-

fice, even if temperature is not very high. Nervous symptoms may arise in the latter part of the disease from want of nourishment or toxemia. In a case recently under my care two convulsions occurred after the temperature had become normal; patient had not regained consciousness and pulse was rapid and feeble. He was given bromide and chloral by rectal injection and placed in a hot mustard bath, which latter produced an almost immediate palliative effect.

Although late convulsions are an unfavorable symptom, indicating, as they do, toxemia, exhaustion, or the beginning of meningitis, this patient now is in a fair way to recovery.

For sleeplessness, large doses of sodium bromide are preferred. Nothing has been said about expectorants, and they are mentioned simply to be condemned, as they derange the stomach and are more or less depressing. If cough is troublesome and painful, codeia sulphate is the best remedy, because it does the least harm. Sometimes much good is accomplished by giving small doses often, as it allays the patient's pain and fear. It should, however, always be given sparingly and dispensed with as soon as possible. Complications very seldom arise under this treatment, hence will not be discussed. Cerebral complications must be met promptly by cold applications to the head, and mercurials. We must never neglect to be on the lookout for empyema, which, of course, requires surgical attention; its prompt evacuation under the use of local anesthesia is demanded. Abscess of the lungs sometimes occurs in young children as a result of pneumonia. Many, however, recover in time with a comparatively useful lung.

Under this treatment, of seventy-eight cases, of which record has been kept, one death occurred. The case was seen late, and it is our opinion that the patient was poulticed to death. To sum up, strychnia and alcohol as stimulants, mild chloride, sodium salicylate, and aromatic fluid extract of cascara sagrada as antiseptics and laxatives; freshly made and slightly alkaline liquor ammonii acetatis as a diuretic; cold applications to the head and cold sponging for fever and nervous irritability; codeia sulphate guardedly for pain and cough, and our mortality of the primary pneumonias in children will be almost nil.

Drugs and Nursing Women.—Marfan (*Journal de Medicine de Paris.—Detroit Medical Journal*, Dec., 1901) states that the following should be given: Opium, morphine, atropine, hyoscyamus, colchicum, arsenic, cocaine, chloral, the salts of lead (which are precipitated by milk), digitalis, ergot, and antipyrin, in those cases in which they induce untoward effects. Quinine ought always to be given after a meal. Cocaine and camphor decrease the secretion of milk, and iron, euonymus and eupatorium augment it.

Ovarian Organotherapy.—Wilmer Krusen (*Bulletin of the Johns Hopkins Hospital*, July, 1901), has employed ovarian extract for three years in cases of amenorrhea, for the symptoms consequent to removal of the uterine appendages, and for the disturbances associated with the natural menopause. In cases of amenorrhea and dysmenorrhea no good effects were secured. The best results were obtained in the relief of symptoms due to the artificial menopause; in a few instances the congestive and nervous systems were ameliorated. No perceptible result was observed in the use of ovarin in the natural menopause. The author believes that the theory which suggests the use of this extract is faulty, and its administration is based upon a wrong supposition of the function of the ovary. In organotherapy the best results have been obtained from the use of the thyroid and adrenal glands, and the ovary has no corresponding function. Ovulation is the function of the ovary, and if any peculiar product is accidentally manufactured from it, its isolation has not yet been accomplished.—*Amer. Medicine*, Nov. 30, 1901.

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Editorial.

THE TREATMENT of scarlatinal nephritis, as abstracted from the paper by Dr. F. HUBER, is based upon a large clinical experience in diseases of children. Could the laity be made to understand, as the doctor says, that "the physicians duties are not terminated when the rash disappears, the temperature subsides, and throat, glandular or ear troubles have been removed," we feel sure the number of cases of post-scarlatinal nephritis would be very greatly reduced.

* * *

THE ARTICLE on the treatment of pneumonia in children, by GEORGINA GROTHAN, is presented in full on account of its great practical value and its completeness. One of the greatest dangers in the treatment of this disease is over-medication; so much so, that it has been said that there is more harm in doing too much than not enough. If the suggestions given in this paper are followed, suiting the special method to its own case, the results cannot be anything but gratifying.

* * *

PUERPERAL SEPSIS is a condition which cannot be discussed too often nor too thoroughly for the general practitioner. In this issue FRANK A. HIGGINS calls attention to the fact that no regular treatment can be relied upon as a routine measure, but that each case must be treated according to the indications. The profession has come to learn that curettage is not "a cure for all" in these cases; where retained secundines have become decomposed or infected, curettage by removing the offending agents often produces prompt results. Where, however, the system has been overwhelmed with the toxines of sapræmia or septicæmia, our main reliance must depend upon sustaining and supporting measures, together with the serum appropriate to the particular case.

* * *

THERE ARE FEW diseases for which a larger array of drugs have been tried and recommended than in whooping cough. It is unfortunate that our means of overcoming the disease is in inverse proportion to the number of remedies advocated for its cure, and yet it is only by experimentation that we can ever hope of procuring anything like a specific. Irrigation of the nares with a physiological saline solution, particularly if carried out early and efficiently, has been tried of late and with good results.

* * *

PHOTOTHERAPY and the Roentgen rays have done much to enable dermatologists to offer greater hope to many of their cases formerly considered as hopeless. In lupus vulgaris there can be no question that these methods are superior to all others heretofore advocated, while in epitheliomata they are valuable adjuncts to, if not supplanting, the treatment by caustics.

* * *

ANY REMEDY which would serve to diminish or cure the severe itching attendant upon many pruritic affections would be hailed by the dermatologist with great satisfaction. It seems that in epicarin, a beta-naphthol derivative, we have darug which has proven of great value in selected cases. Thus far the best results have been attained in scabies and prurigo; eczema and psoriasis have not responded to its use.

Current Literature.

Treatment of Puerperal Infections.—Frank A. Higgins (*Annals of Gynecology and Pediatry*, December, 1901) relates his experience with a large number of puerperal infection cases treated at the Boston City Hospital. He states that no regular treatment has been carried out as a matter of routine in all cases. Many cases are promptly curetted immediately on admission to the hospital and it is believed that by so doing serious infections are thus headed off in many instances. If the infectious process has not extended beyond the endometrium, if the uterus remains large and soft, if there are retained products and there is a profuse foul discharge from the uterus, it is believed that curettage is of marked benefit in that it removes the focus of the disease and the decomposing material, and that it favors involution of the uterus. If there are no retained products and the uterus is firmly contracted it is useless to curette, as it is probable that there has been direct absorption of the infectious organism at the placental site or through cervical or vaginal lacerations.

Curettage of the puerperal uterus is easily and quickly performed, causing little pain and no shock, and for which it is usually unnecessary to give an anæsthetic. Following curettage, and in certain cases when that operation is not necessary, intrauterine douches of a dilute antiseptic solution once or twice daily are of value chiefly for their effect in washing away putrid discharges. Weak bichloride and also sterile normal salt solution have been used in large quantities, and the latter, so far as can be determined, seems to be as efficacious as the former. Recently, however, weak solutions of formalin, one-half to one per cent., have been used in a number of cases with apparently good results. The antiseptic qualities of formalin are well known, and in addition it seems to have certain penetrating powers not possessed by the other antiseptic solutions.

From marked success in the treatment of several cases of old sinuses which had resisted all attempts at healing by all other methods, the writer was led to use formalin in intrauterine douching.

Nearly every rational method of treatment proposed for puerperal infection has been attained by the means mentioned here. Hysterectomy, however, has not been done as yet. The subcutaneous injections of normal salt solution, which has been reported as curative in a number of cases, seems to act as a stimulant only, and to a limited extent.

Phototherapy in Dermatology.—Leredde (*La Presse Medicale*, Sept. 7, 1901) says that phototherapy is of prime importance in the cure of tuberculous lupus. After galvano-cauterization it is extremely difficult to get the curative effect of phototherapy. Galvano-cauterization is the favorite method of treatment. Many cases which had been treated in this way and which subsequently came under Laredde's phototherapeutic treatment were quite obstinate on account of the dense scar tissue which forms after the use of the cautery. The treatment of erythematous lupus with the Finsen rays of light is not as successful as that for tubercular lupus. The Finsen rays can also be used in the treatment of dermatoses of the face where chemical agents cannot produce much effect on account of the depth of the lesion. Phototherapy will often cure acne rosacea when it is limited to the nose.—*St. Louis Medical Review*, Dec. 14, 1901.

Whooping Cough.—William C. Hallopeter (*Medical Bulletin*, December, 1901) expresses his views on the management of whooping cough in the following manner:

The *drugs* recommended in the treatment of this disease have been legion, and include nearly the whole pharmacopœial list. Many have been lauded as specifics, but all have been found wanting. I have of late years come to regard the local treatment the most important, provided

the disease is diagnosed in the first. or catarrhal, stage. Whooping-cough has a striking parallel in diphtheria, in that its first manifestations are localized in the throat. Here the germs firat plant themselves, and if we can reach them and dislodge them by the use of some germicidal agent, we may be able to abort the attack or at least to mitigate its severity. A spray or gargle of peroxide of hydrogen will fulfill this indication After the whoop is well established it is impossible to accomplish much by the local treatment other than cleanliness. For this reason it should be kept up, as it lessens the possibility of broncho-pneumonia.

Of drugs for internal medication, the antispasmodics are probably the best. My choice has been mistura asafœtida, ½ drachm every two hours. This, however, is often disappointing, and probably the next best drug is belladonna. This may be employed in the form of the tincture, or the alkaloid atropine substituted. The dose of the tincture should be 1 drop for every month of the child's life, and should be pushed to the full physiological effect. A prescription I have been in the habit of using is the following:

℞ Atropinæ sulph..... gr. j.
Aquæ destillatæ..... f℥j.

One drop of this is given every three to four hours, and gradually increased until a cutaneous flush is obtained, and the child is then kept under its physiological effect. The coal-tar products have been used of late, and of these antipyrin is the best. One grain of antipyrin is given for each year of the child's life. For a child of three years of age I would order:

℞ Antipyrin..... gr. xlviij.
Sherry-wine, } of each... 1 ounce.
Glycerin, }
M. Sig: One drachm every 3 to 4 hours.

A combination of belladonna or atropine and antipyrin I have found to act better than either alone.

A very useful adjuvant is the use of a freshly-prepared belladonna plaster placed between the scapulæ. Bromoform in the doses of 1 to 2 minims has been used, but has been a keen disappointment. Quinine, charcoal, creosote, and carbolic acid I have found to be of little value.

Complications and sequelæ should be guarded against, and, when they do arise, should be treated according to general indications. Convalescence is favored by sea-shore life, and a tendency to chronic bronchitis is overcome by an early and continued use of codliver-oil.

Treatment of Leucoplakia.—John V. Shoemaker (*New York Medical Journal*, Nov. 23, 1901), in an exhaustive article on Leucoplakia, recommends the following plan of treatment: The patient should be counselled to give up tobacco and alcoholic drinks, to avoid hot food, acids and condiments. If a bad tooth seems to be the cause of the trouble, it should be extracted or its cavities filled and its edges rendered smooth. If an ill-fitting plate is worn, it should be discarded and a more nearly perfect article be procured. Antiseptic and alkaline mouth washes are useful. An application consisting of one-half per cent. corrosive sublimate and one per cent. chromic acid solution has been recommended by Schwimmer. The same writer has advocated the local use of papaine, one part being dissolved in ten parts each of distilled water and glycerin. In a case affecting the upper lip and tongue, H. Niemyer, by the application of this solution once every day, obtained complete healing of the tongue and decided improvement of the lip in seventeen days. Sherwell claims speedy improvement after the application, two or three times a day, of undiluted mercuric nitrate, protecting the adjacent parts with absorbent cotton and neutralizing with sodium bicarbonate and glycerin. Zabaco likewise states that he has secured good results in mild cases from applications of the same mercuric solution. By other authorities a two per cent. to ten per cent. solution of potassium bichromate is employed. The balsam of Peru is considered a beneficial application by some authors.

Pure lactic acid in ten per cent. solution, a ten per cent. to thirty per cent. solution of salicylic acid, and a twenty per cent. solution of potassium iodide are among other agents which have been employed.

Cauterization of the lesion is advised by some and discountenanced by other authorities. The thermocautery, galvanocautery, and solid stick of silver nitrate have been made use of for this purpose. Dujardin-Beaumentz wrote approvingly of a suggestion put forth by Köbner, of Berlin, who administered belladonna prior to the operation, in order to check supersecretion of the saliva, which will rapidly remove the eschar. Dujardin-Beaumetz refers to cases which have been cured by this method. On account of its tendency to end in epithelioma, however, I am in accord with those who advocate a cautious local therapy and the avoidance of escharotic measures. If the lesion is ulcerated and fissured, if it has resisted mild local treatment, and, above all, if enlarged glands are detected in its vicinity, it is judicious to have recourse to a surgical procedure. The nature of the operation must be governed by the circumstances of the case. In a number of instances, Ransohoff has practiced with encouraging results an operation which he terms decortication—*i. e.*, the removal of as much of the cortex of the tongue as is necessary for the radical cure. This writer states that recovery takes place speedily, and, upon the denuded surface. In some cases, which he had the opportunity of examining several years after the operation, it was impossible to determine, by inspection or touch, any cicatricial tissue. The same term, decortication, had been employed by Trillat and Verneuil in 1880.

The general treatment of the disease must be regulated according to the predisposing causes. If the patient is syphilitic, he should be placed upon specific remedies, although these have no influence upon leucoplakia in the absence of active syphilis. Digestive disorders, lithæmia, etc., should be managed upon general principals. In this class of cases Hertzka saw a cure from a course at Carlsbad.

Amenorrhea.—Dr. Boardman Reed says that two or three drops of the tinctures of cimicifuga and gelsemium — sometimes one drop of each—every hour or two, are among the most certain means of bringing on the menstrual flow when delayed by passive congestion, cold, grief, or other similar cause, and acts similar with the lochial discharge after parturition. Dragging pelvic palns arising from the same causes may be relieved by the same combination.—*Medical Summary, Dec., 1901.*

Glutol for Burns.—The *Medical Examiner and Practitioner* (July, 1901) states that at the Berlin Feuer-wehr Congress, Oberstabsarzt Dr. Leu spoke very highly of Glutol with regard to first aid in all cases of burns, more especially of those occuring at fires when persons were recovered from the débris or members of the fire brigade had been injured, as it had proved not only to be a very excellent temporary bandage, antiseptic and protective, but also considerably reduced the pain and favored the healing process. He strongly recommended that a supply of Glutol should form part of the equipment of every fire extinguishing apparatus, since it may be called a self-applying bandage, and which also, for subsequent treatment, would prove of the greatest possible advantage.

Therapeutic Uses of Beer Yeast.—The uses of yeast appear to be greater than generally supposed. The New York *Med. Journal* (Dec. 21, 1901) abstracts the following: M. P. Carles (*Répertoire de Pharmacie*, August) says that beer yeast has been a favorite remedy in furunculosis in northern countries for many years. Debouzy was the first to call attention to its therapeutic value in the medical press. In addition to furunculosis, this author asserts that he has cured with yeast an undoubted case of glycosuria. He administered it in doses of from two to three tablespoonfuls three times a day during meals. Patients who take this remedy have

frequent eructations of gas. Brocq has found that yeast is also very useful in acne, and Tiercelin and Chevrey have recently used it with success in gastro-enteritis of infants. The use of yeast originated in a country of beer brewers, and the physicians employ it probably in order to destroy the excess of sugar in the organism before it reaches the kidneys. They always use fresh yeast, and this freshness seems to be an essential element of its activity. It may be that the lack of freshness accounts for the contradictory results obtained with yeast by various observers. It should be dried in vacuo at 35° C. and may thus be preserved for some time. When it loses its power of fermenting sugar, it becomes inert. Buchner found, by subjecting the yeast globules to trituration and to very intense pressure, that a liquid which he termed zymase might be obtained, which immediately inverted sugar and decomposed it into carbonic acid and alcohol. It is the gastric juice and thereby set free the zymase very possible that the yeast globules are dissolved in which they contain. Probably it is in this way that yeast acts upon the carbohydrates taken in the food.

Salol in Pediatric Practice.—The *Therapeutic Monthly* (June, 1901) states that salol was first used in medicine by Sahli in 1886. That it is composed of salicylic and carbonic acids, which are broken up in the intestines by the action of the pancreatic juice, is well known. Next to calomel, in the treatment of the diseases of children, there is no drug so *universally* employed as salol. Its main indication is rheumatism, in which affection it is a specific. It is known to be of service, nowadays, in all the allied manifestations of rheumatism, in lumbago, intercostal neuralgia, torticollis, tonsillitis and pharyngitis, lithemia, chorea, and also in diabetes mellitis. It is, however, most useful in all forms of gastro-enteritis, especially those in which fermentative indigestion exists. Thus it is given in the summer diarrhea of infants, both mild and severe, in the enterocolitis of larger children, all forms of cholera, dysentery, duodenal catarrh, and catarrhal jaundice. In the infectious diseases, especially influenza and typhoid fever, salol seems to have a striking effect upon the bone pains, headache and angina, which occur at the onset; later it acts as an intestinal and urinary antiseptic. In cystitis, urethritis, etc., it is also indicated. Externally it has been used as a dusting powder upon open wounds. In the anemia seen in growing children, whether due to chlorosis or secondary to chronic indigestion, salol is of great service. But most marked of all, though no text-book mentions the fact, is the action of salol in small doses, sometimes combined with a minute quantity of calomel, in reducing moderate pyrexia in young children, when the cause of the fever has not, as yet, been discovered. Much more effective in action, it now replaces nitre and Spirits of Mindererus, the popular antipyretics of our ancestors. Large doses of salol are only given in acute rheumatic affections, 5 to 10 grains every two hours, depending upon the age of the child. In ordinary doses, 1 to 3 grains every three hours, there are no contraindications to the use of salol, and poisoning is unknown. Not the slightest doubt exists that salol has now become ubiquitous in pediatrics.

The Best Way of Prescribing Calomel as a Purgative.—Adrian Landre (*N. Y. Med. Journal*, July 27, 1901) usually gives calomel in tablet triturates of ½ grain each, beginning in the afternoon at about 4 o'clock and continuing them every half hour until 4 grains have been taken. This to be followed by a seidlitz powder the next morning. He believes, with Wood, that calomel escapes into the intestines, and is precipitated in the form of gray oxid of murcury. Sodium bicarbonate assists the change, but he does not employ it when he uses tablet triturates, because they cannot always be obtained

fresh. When kept for a long time they undergo a change, become gray in color, and lose the effect that a recently prepared powder always possess. The administration of calomel should always be followed by a cathartic. For children the author uses freshly prepared powders with sodium bicarbonate and sugar of milk. This is followed by 1 to 2 drams of castor oil the next morning.—*Amer. Medicine.*

Methylene Blue in Pleurisy, with Effusion.—C. H. Lewis' (*Med. News*, June 1, 1901) method is to apply the aspirator (Potain) carrying the tube which withdraws the serum, to the bottom of the vessel. The short tube through which the air is exhausted remains as usual. Any aspirating syringe will serve. The serum is then drawn into the graduate by the ordinary method and readily mixes with the blue which has previously been placed therein. This is then forced back into the pleura by reversing the action of the aspirating syringe. The process can be repeated until nearly all the blue is taken up. In twenty-four cases of pleural effusion the author used this method. The dye was found in the urine four hours later, and was excreted sluggishly but continuously until the pleural cavity was emptied by free incision. The quantity of methylene blue employed was five to fifteen grains. Most of the cases received ten grains.—*Therapeutic Monthly, June, 1901.*

Ulcer of the Stomach.—J. W. Upshur (Virginia *Medical Semi-Monthly*, Dec. 13, 1901) in a communication on Gastro-Intestinal Therapy remarks that all food by the mouth should be prohibited, and the patient nourished by rectum as long as it can be tolerated; a little tincture of opium added to the enema will increase the tolerance of the bowel. This puts the stomach at rest and enables us to satisfactorily exhibit appropriate drugs. I have found no agent better than silver nitrate, assisted by complete and absolute rest in bed. This may be given by mouth in solution, or it may be applied by means of the tube. I am strongly inclined to the opinion that systematic lavage in these cases with an antiseptic solution will tend to repair the ulcer. When the rectum becomes intolerant and nourishment has to be given by the mouth, it should be liquid, and consist entirely of milk, lime water and white of egg, meat juices, or broths, given in small quantities and frequently repeated. Thirst may be controlled by bits of crushed ice, and the patient's strength sustained by full doses of strychnia—no alcohol being given if avoidable.

Aspirin.—This salt is due to the action of anhydrous acetic acid on salicylic acid; it is entirely free from irritating effect upon the stomach, and the ringing in the ears and the disturbance of the nervous system produced by salicylic acid and quinine. In rheumatic fever and the wandering pains that are apt to follow the congestive stage, sometimes of a neuralgic character, the remedy is of special value, as well as in the headache, the fever, the aching and soreness of the muscles, and the neuralgic pains of the whole system. It may be given in fever, five to twenty-five grains, every two or three hours, in solution, dry on the tongue, or in capsules. The freedom of the drug from unpleasant drawbacks makes it a desirable remedy for children and delicate persons.—*N. Y. Med. Times.—Detroit Med. Journal, Dec., 1901.*

Treatment of Diabetic Coma.—Heinrich Stern (*Journal A. M. A.*, December 8th) advises enteroclysis of precipitated calcium carbonate, from two to six grams every three to four hours. The calcium carbonate is to be suspended in one litre of water of a temperature of 42° C. the suspension being facilitated by the addition of gum arabic. Stern is of the opinion that the unfailing control of the coma in every instance reported by him seems to be due to a specific action of the

calcium carbonate. Possibly some of the precipitated chalk had reached a portion of the intestines, where, by the influence of acid upon it, carbonic acid was evolved, which in one form or the other, had found entrance into the blood-channels, there neutralizing the acidosis; possibly the calcium itself, probably after the liberation of carbonic dioxid, served as a base with which a toxic substance united to form an inert or innocuous compound.—*Medical Review of Reviews*, Sept. 25, 1901.

Migraine.—The lives of many people are so seriously marred by frequent recurrences of severe headaches that successful treatment of this most annoying condition becomes of vital importance to the physician. The individual attack is usually comparatively short and self-limited, so that various drugs may relieve the distress, but to be able to so change the constitution and habits of the patient that attacks of migraine cease to occur is, indeed, seldom realized. W. H. Thompson (*Med. Rec.*, Nov. 16, 1901) believes that too little attention is usually paid to these unfortunate patients, whose lives are often most miserable. Migraine can not be classed among the degenerative nervous diseases, for it is chiefly a malady of youth and of the prime of life, decreasing in old age. There are whole classes of people who seldom if ever are afflicted with it, and these include nearly all those whose occupation calls for physical work in the open air. Clergymen, students, shop-girls, professional men and housewives are especially prone to the disease. The secretion of bile is considered by the author as an important factor in the determination of migraine, and a sedentary life, with an inactive diaphragm, abdominal muscles and a sluggish circulation, certainly tends to obstruct the normal flow of this secretion. Imperfect digestion and chronic constipation naturally result. Many of these products of imperfect digestion are nerve poisons, and it is one of the important liver functions to destroy these gastro-intestinal nerve poisons. Measures must be devised in each case to cause as fully as possible, in accordance with modern civilization, habitual activity of the portal system. All severe cases are chronic dyspeptics with chronic constipation. Five grains of blue pill with a saline in the morning is a weekly prescription to be kept up for months. One to two drams of sodium sulphate with ten grains of sodium salicylate are to be taken in hot water every morning. Before each meal, a pill is prescribed of one-twentieth of a grain of bichromate of potash with three grains of bismuth subcarbonate. After meals intestinal antiseptics, such as naphthol, bismuth or ammonium benzoate, may be given. A good prescription is:

R Sod. sulpho. carbol. . gm. 0.30 (gr. v)
Kal. permangan. 0.06 (gr. i)
Beta naphthol. 0 06 (gr. i)

To be taken after meals and at night. For severe attacks of migraine the fluid extract of ergot in dram-doses, with elix. cinchona in water by stomach or rectum, is, perhaps, the most certain agent. The patient should lie perfectly still until all pain ceases and the dose may be repeated in an hour or two. Ten grains of lacto phenin and two grains of caffeine citrate are also a valuable combination.—*Med. News*, Nov. 30, 1901.

Therapeutics of Subacute and Chronic Heart Diseases.—Thomas E. Satterthwaite (*Medical News*, Aug. 10, 1901) outlines his plans of treatment, and among other things says: For severe attacks of dyspnea, I give nitroglycerin in doses of from 1-150 to 1-50 of a grain, and I have given the latter dose as often as every hour for many hours together, for nitroglycerin, while it contracts the heart, dilates the arterioles. In fact, I always now use the nitrites for cyanosis or dyspnea in place of digitalis.

For sudden and violent attacks of dyspnea or angina, whether mild or severe, I give capsules containing each 1-100 of a grain of nitroglycerin, ¼ of a grain of amyl nitrite and 1-50 of a grain of men-

thol, with 1-100 of a grain of oleoresin of capsicum (made for me by H. A. Cassebeer). These ingredients are suspended in ten minims of castor oil. Relief is usually obtained in less than a minute, often in a few seconds. The capsule may then be given safely at intervals of four hours for days together to prevent subsequent attacks.

In precordial pains and insomnia, especially in the morphine habit, I have occasionally used paraldehyde with success. It is a hypnotic, antispasmodic and stimulant. I give it in 30-grain doses, with success, and without any subsequent bad effects. I have also used trional successfully in some instances when there is the opium habit, but I give them only for very brief periods. I rarely give any preparation of opium. One of the most unfortunate results of drugging by digitalis and its allies is that it produces such distressing effects that patients seek relief by opiates. A course of baths and exercises is in these cases a revelation to the patient, who suddenly finds that he can do without any of these drugs.

SANTONINE.—This drug, which has generally been looked upon only as a reliable anthelmintic and very seldom thought of except in certain forms of verminous trouble, is now found to possess a much wider range of action and to be of special value in the treatment of epilepsy and the pains of locomotor ataxia. The physiological action of this drug is markedly upon the nervous system; taken in large doses, producing great weakness, tremor, perspiration, coldness of the extremities, vomiting, and not infrequently quick, sharp convulsions, terminating in death from paralysis of respiration.

The effect upon the vision is very marked; at first, everything appears blue, which speedily turns to a greenish yellow, which may be followed, if large doses have been taken, by total blindness lasting a week or more. The physiological action of this drug is so marked in its effect upon the nervous system that we obtain a clue to a remedial agent of great power in influencing general changes of nervous sensibility. In its action we have an excellent reproduction of the symptoms of epilepsy and the pains of locomotor ataxia, and Lydstone claims that he has obtained better results from it in epilepsy than from the bromide treatment. The dose recommended in these cases is two grains three or four times a day, gradually increasing to fifteen grains at a dose, if that amount is well borne. In the fulgurant pains of locomotor ataxia we have given two grains three times a day with better results than from any other drug, the pain almost entirely disappearing while under its influence. Studying the action of drugs, from the dual standpoint, there can be no doubt of the wide range of action of santonine on the nervous system and its great value in many other diseases.—*Editorial, Medical Times*, December, 1901.

NEURASTHENIA.—I am of opinion that sympathy is a great factor in the treatment of neurasthenia. Patients have often come under my notice of whom I have said to my colleagues that what they wanted was not so much medicine as sympathy. It is essential that the symptoms should not be scoffed at. To the patient they are very distressing, and if the doctor made light of them he was apt to lose the confidence of the patient; and if he does this he will in all probability fail in the treatment of the disease. Perseverance and tact are specially necessary, but attention to detail is absolutely important. I am accustomed in the treatment of my patients to plan out his life for him from the time he gets up in the morning until he goes to bed at night. The time at which his meals should be taken, and the quantity, are important, and as in many of these cases disturbances of the gastro-intestinal tract preceded the disease, improvement of the digestion and a daily evacuation of the bowels should be

brought about. As cases of this kind are self-centered, the patient should be advised to employ himself in some way, either by gardening, riding, golf, etc. While the Weir-Mitchell treatment in a nursing home is of use in some cases, many, especially poor cases, can be treated equally well in their own homes. As regarded suggestion, I am doubtful whether hypnotism is of any use, but I believe that if I could inspire the patient with confidence that he would get well, it would undoubtedly help to cure the disease. I am of opinion that employment in the open air helps recovery by the healthy distraction it affords.—*Fletcher Beach, M. D., Medical News, December, 1901.*

Urea in the Treatment of Tuberculosis.—Henry Harper (*Lancet*, Dec. 7, 1901), as abstracted in the *Journal of the American Medical Association*, Jan. 4, 1902, reports seven cases treated with urea with remarkable success. He thinks it exerts a specific action on tuberculosis, quite as marked as that of mercury in syphilis, salicylate of sodium in rheumatism and iodide of potassium on bronchial asthma. The urea used was a synthetic product, and he suggests that it is an interesting question whether that derived from animals would have the same effect. "Cases suitable for the administration of urea are: 1. Circumscribed pulmonary tuberculosis of the lung, in which the sputum exhibits abundance of bacilli and only a limited number of cocci. 2. Enlarged tuberculous glands situated in any part of the body. 3. Tuberculous pleurisy (here in my cases urea acted like magic). 4. Tuberculous laryngitis. 5. Lupus. 6. Tuberculosis of the peritoneum with fluid in the peritoneal cavity. 7. Hydrocephalus in children. 8. Tabes mesenterica or carreau. Cases which are unsuitable are: 1. Pulmonary tuberculosis where cocci predominate, practically covering the whole field of the microscope, and the tubercle bacilli exhibit a short stumpy appearance, the typical Koch's bacillus being scanty. 2. Acute miliary tuberculosis with a high temperature (103° F. or over). 3. Gastritis. 4. The last stage of tuberculosis, where the patient is dying. 5. When the patient has a temperature over 101. Mode of administration: To carry out the intensified method a beginning should be made with small doses of from 10 to 15 grains thrice daily, gradually increasing them up to 40, 50 or 60 grains as a maximum. Practically this amounts to ½ per cent. of artificial urea added to the normal quantity circulating in the blood." The way he came to prescribe urea was from the suggestion offered by the apparent immunity of gouty individuals. He asked himself if gouty salts are antagonistic to tuberculosis; is it not possible to administer these to tuberculosis? He quotes Dyce Duckworth, Harris, Beale, Weber and others in favor of this view. He believes that natural immunity has not received due recognition and he thinks there is almost a parallel in this respect between typhoid fever and tuberculosis as regards the greater susceptibility among country residents moving into town. The drift of medical opinion to-day is to ignore heredity and over-value contagion, assuming that every human being is vulnerable to tuberculosis. He suggests that the race has become somewhat immune by heredity. He has never yet seen any harm come from the administration of urea, and has obtained the best results from 40 to 50 gr. doses three times a day. The highest dose he has reached has been 70 grs. three times a day, which practically equals one-half the total quantity of urea excreted by the average healthy man. The notion current in all the text-books that urea is a substance to be gotten rid of, is not in accordance with his experience. He now believes that uremia or anything like it cannot be induced with urea, for here we have the toxalbumins to be reckoned with. The gain of flesh coincident with the ingestion of urea is an obvious fact demanding an explanation, and he suggests that it is nutritive and supplements the food. In all his cases where death followed after administering urea, mixed infection was the predominant feature, and he has come to believe that failure to respond to this drug is a differential test for true tuberculosis and mixed infection.

Therapeutic Notes.

CHOREA MINOR.—

℞ Sodii bromidi,
Potassii bromidi, āā..... ℥i
Antipyrini..... ℥ss
Aq. menth. piper.....q.s. ℥i
M. Sig.: ℥i. *t. i. d.*

—*Journal A. M. A.*, Dec. 21, 1901.

ACUTE TONSILITIS.—

℞ Tincture iodine..... ℥i
Potassium iodide..... gr. xv
Carbolic acid..... ♏ x
Glycerin..... ℥ss
Water.....q.s. ℥iv
M. Spray throat every hour or half hour.

—B. RAY BROWNING, *N. Y. Med. Journal*, Dec. 14, 1901.

GOITER—

℞ Iodoformi..... gr. cxx
Pulv. ferri reduct..... gr. xl
Ext. gentian..... q.s.
M. et ft. mass. in pil. No. xl.
Sig.: One *t. i. d.* p. c.

—W. A. ARMSTRONG.

PERTUSSIS.—

℞ Mentholi..... gr. i
Sacchari..... gr. xij
M. et ft. chart, No. vi.
Sig.: One every two hours.

—BAGINSKY.

ACNE VULGARIS.—

℞ Precipitated sulphur..... 25 gms.
Camphorated alcohol..... 60 "
Rose water..... 200 "
Distilled water..... 215 "
M. Sig.: Apply at night with brush.

—CHARNEIL, *International Med. Magazine*, November, 1901.

HYSTERICAL HEADACHE.—

℞ Zinci valerianatis..... gr. xij
Ext. belladonnæ..... gr. iv
Ext. gentianæ..... gr. xxiv
M. ft. cupsule No. xij. Sig.: One capsule three times a day.

℞ Tinct valerianæ,
Spir. ætheris comp.,
Spir. lavendulæ comp., āā..... ℥iij
Tinct. hyoscyami..... ℥ij
Aq. camphoræ, q. s. ad..... ℥iv
M. Sig.: One tablespoonful 3 times a day.

℞ Tinct. valerianæ ammoniatæ,
Spir. ætheris comp.. āā..... ℥iij
Aq. camphoræ, q. s. ad..... ℥ij
M. Sig.: One dessertspoonful twice or three times a day.

—*Journal of the A. M. A.*

CHAPPING.—

℞ Oxidi hydragyri flavi..... gr. ij
Balsam peruvian..... gr. x
Petrolati..... ℥ss
M. Sg.: Apply twice daily.

—HEARN.

FEVER OF PULMONARY TUBERCULOSIS.—

℞ Acetanilid..... gr. i
Phenacetine,
Antipyrine, āā..... gr. iij
M. Sig.: To be given when temperature reaches 101° F.

—LEONARD WEBER.

USES OF BENZINE.—Professor Franks (*Clbl. f. Chir.*) has for some years employed benzine in cleaning the skin after the application of ointments; this renders the removal of the dried and often adherent masses extremely easy. The rubber adhesive plaster which sometimes adheres so firmly to the skin that when it is pulled off it causes not only a great deal of suffering but even actual excoriation and bleeding, can be removed painlessly if after raising one corner of the plaster a pledget of cotton soaked in benzine is pressed against the rubber surface. Benzine has a very feeble action upon pus bacteria. It is to be preferred to ether as a means of cleaning the skin because it is cheaper, does not produce the same cooling effect, and causes no irritation even of the tenderest surface.—*Medical Times*, December, 1901.

IMPACTED CERUMEN.—*Pediatrics* (Dec. 1st, 1901) quotes from the *Philadelphia Medical Journal* as follows: Hardened wax in the external ear can often be removed readily by injections of warm water and soap, soda or ammonia. Many cases resist this and require the softening effects of glycerine or sweet oil for a day or two before syringing. Do not bother with these long processes, but use a half-strength solution of hydrogen dioxid in the ear for about five or ten minutes. This will disintegrate the hardest plugs and they can be removed with very little syringing. I have yet to see the case in which this process has caused irritation or inflammation. Do not use too much force with the syringe. Wipe the ear perfectly dry with absorbent cotton and apply petrolatum. Wear a small plug of cotton in the ear for one day after removal.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Leading Articles.

*GENERAL MEDICAL TREATMENT OF SYPHILIS.**

By G. FRANK LYDSTON, M.D., of Chicago.

The pivotal point in the therapy of syphilis is of necessity the specific medication of the disease. In few or no instances, however, can specific medication alone be relied upon for a satisfactory result. In many instances the importance of specific medication sinks into insignificance before the general therapeutic indications present in the particular case. Specialism has done great harm by limiting the range of remedies useful in syphilis, independently of their specific effect. The success or failure of treatment in by no means infrequent instances depends more upon the general and therapeutic skill of the practitioner than upon the assiduity with which he carries out specific therapy.

The general hygienic management of syphilis is of fundamental importance. In many instances mercury and iodides act badly, simply because the patient's eliminative areas are not functionating with their normal activity. Injurious results from the drug specifics occur under such circumstances, and are explained by that explanation which does not explain, "idiosyncrasy." Ptyalism and iodism may both be avoided in many cases by attention to the eliminative functions. The ingestion of large quantities of water, with the concomitant increased functional activity of the skin, kidneys and bowels, is very useful in syphilis. This point is too frequently neglected. In giving iodides it is best, as is generally known, to administer them simultaneously with considerable quantities of water. It is impossible, however, without resulting stomachic disturbance, to give a sufficient quantity of water in this way to perfect elimination by the kidneys in certain cases in which the renal function is inadequate. It is in just such cases that iodism from so-called idiosyncrasy is liable to occur.

The best method of giving the iodide under such circumstances is to mix the daily dose of the drug with a given quantity of pure water, say from two quarts to a gallon, and instruct the patient to drink the entire amount, a glassful at a time, at intervals during the twenty-four hours. I have succeeded in avoiding iodism in this way in patients in whom the smalles quantity of iodide given by the ordinary method produced iodism.

Hot baths are a very useful adjuvant to the treatment of syphilis. They increae tissue metamorphosis, favor elimination, and necessarily enhance the therapeutic action of the mercury and iodide, while limiting any possible injurious effects of the drugs. In many instances hot baths alone will prevent injurious effects from mercury and iodide. A very hot bath of short duration, taken daily and followed by a cold shower or cold tub, is perhaps the best method of administration for the average patient. The ideal method, however, where its application is practicable, is the Turkish or Russian bath. The patient should drink large quantities of hot water while in the bath. Much of the efficacy of the Hot Springs treatment of syphilis is dependent upon the free inges-

* Reprinted from *Medical News*, Jan. 18, 1902.

tion of hot water while the hot bath is being taken.

Attention to the bowels is very important in the treatment of syphilis. Ptyalism not infrequently results as a consequence of constipation. Obviously, the simpler forms of laxatives are best. The saline aperients taken hot in the morning are excellent. In many instances the substitution of a more active salt of mercury is followed by beneficial results when a tendency to constipation exists. In cases in which the bowel becomes irritated and, instead of being constipated, the patient is afflicted with diarrhea, the substitution of the tannate of mercury for the other preparations, or, in extreme cases, the use of the inunction or hypodermatic method, in lieu of the internal administration of the drug, gives excellent results.

In many instances the therapeutic efficacy of our antisyphilitic remedies is inhibited by digestive disturbance. Here, again, experimentation with various forms of the salts of mercury is often necessary to determine which particular salt is best tolerated. When the gastric symptoms are stubborn, the substitution of the hypodermic or inunction method is imperative. Lavage is sometimes of service in relieving the digestive disturbance and increasing the patient's tolerance for drugs.

When iodides are given, and the stomach and bowels are irritiable considerable trouble is often experienced in carrying out the treatment. When the fault lies with the stomach, the combination of essence of pepsin, plain or phenolated, with the iodide is useful. Taka-diastase is indicated when the irritation is largely of the bowel and starch indigestion exists.

In many instances in which syphilitic lesions, particularly of the mucous membrane, are very resistant to treatment and the patient apparently does not tolerate mercury and iodide well, the substitution of chlorate of potassium for these remedies is followed by most beneficial results. It should be given in ten-gain doses four times daily, largely diluted with water. It may be urged that this remedy acts only by antidoting certain evil effects of the iodide and mercury, which untoward effects are mistaken for symptoms of the disease itself. I am of the opinion, however, that the chlorate of potassium, while in no sense a specific for syphilis, has a marked and positive action of its own in syphilitic lesions, more especially of the mucuos membrane. Whether its property of hyperoxygenating the blood is responsible for the benefit derived from the drug is open to question, and is of but little moment. The clinical fact, I believe, remains the same, *i. e.*, that chlorate of potassium is one of our most valuable remedies in the systematic treatment of syphilis.

He would be a careless practitioner, indeed, who did not realize the value of and utilize remedies of a tonic nature in the treatment of syphilis. In many instances the administration of simple tonics, such as iron and bark, will bring about a successful result in cases which are absolutely resistant to specific treatment, and which indeed seem to grow worse under it. It must be remembered that not only is syphilis debilitating, but full physiologic doses of mercury and iodide produce a distinctly debilitating effect, often with profound anemia. This anemia results not only from the perversion of nutrition caused by faulty digestion and assimilation induced by the irritating property of the mercury and iodide, but from the special action of these drugs on the hematopoietic function.

The combination of the preparations of iron with mercurials, such as the pill duo, originally suggested by Otis, often obviates the debilitating effects of mercury. In long-standing cases of syphilis the syrup of the iodide of iron is the most eligible preparation of the drug. The wine of coca, as suggested by Dr. R. W. Taylor, or, preferably, in my experience, the fluid extract, has a by no means unimportant action in avoiding debility in

syphilitics. The combination of arsenic with the mixed treatment is useful, not only in combating debility, because of its marked tonic properties, but, as is well known, in inhibiting the effects of the iodide upon the skin. Iodide acne is very much less marked and is often avoided when arsenic is exhibited in combination with the iodide.

The cardinal principle which I desire to emphasize in the therapy of syphilis is that the physician should remember that he has to deal with three factors; first, a specific disease to be controlled by specific medication; second, a distinct, individual personality in each patient; third, the results of antiseptic medication.

There is too great a tendency to treat syphilis and absolutely ignore the individual afflicted with it.

*GLEET.**

By J. Hubley Schall, M.D., Brooklyn, N. Y.
Pathologist to Memorial Hospital.

Ten years ago every case of so-called gleet was suppose to be due to a stricture of the urethra. To-day urethroscopic inspection of a chronically inflamed urethra indicates that such is far from being a fact.

There are few conditions that try the patience of the practitioner more than these troublesome, intractable urethral discharges, which have lasted months, even years, and often lay the foundation for the most pronounced cases of neurasthenia.

Some of the best authorities state that a large proportion of cases are eventually cured, and a certain percentage become chronic and defy every curative method known to modern science.

No doubt that the use of the urethroscope in the diagnosis and treatment of urethral diseases has given us wonderful assistance in clearing up what would otherwise be an incurable gleet.

The urethroscope, which I have used for some time, and seems to answer all requirements, is known as the "Chetwood urethroscope." If it is skillfully manipulated the entire canal from the meatus to the orifice of the bladder can be inspected.

Gleets that continue for months are often due to a membrano-prostatic catarrh. The reason why these cases are so stubborn is because treatment is seldom applied to the diseased area. Results can only be effected by applying treatment to and directly behind the membranous urethra.

Glandular urethritis is another source of chronic urethral discharges. By the aid of the urethroscope the membrane round Littre's and Cowper's glands will appear congested and swollen. The urethral follicles are dilated and are observed to have the appearance of whitish pin-heads. Often these dilated glands form small cysts, which finally break down; a contraction of the mucous membrane follows, and a stricture results.

Congested urethral patches frequently cause gleet. These patches are often found in the anterior urethra, and are first superficial; they can be readily seen with an electric light.

Urethral warts are a fruitful source of an obstinate gleet. In the clinic of Professor Finger, of Vienna, these warty growths are frequently seen. They occur mainly in the penile urethra, often in conjunction with gonorrhœa. I have seen these warts just within the meatus, and they also occur some little distance within the urethra.

Chronic inflammation of the seminal vesicles produces a gleety discharge. The examining finger reveals swelling and tenderness of the vesicles. Inflammation of the seminal vesicles is by no means a frequent complication of gonorrhœa, as many suppose.

Gleet is a common symptom found in much debilitated individuals, and in such cases there is no lesion whatever, but a

* Reprinted from the *Medical Times*, Jan., 1902.

general tonic and hygienic treatment is called for.

Another cause of gleet is contracted meatus, which acts as an irritant reflecting back into the canal.

We must keep in mind that many of the so-called gleets are purely mental. In many instances the patient cannot detect the moisture about the meatus except by repeatedly squeezing the urethra, and in a large percentage of cases we can attribute the discharge to the irritation set up by this practice.

Treatment: In membrane-prostatic catarrh the most reliable remedy will be found in one of the salts of silver, nitrate of silver, from one-half grain to twenty grains to the ounce; five to fifteen drops of the silver solution being instilled into the deep urethra twice a week, the strength of the injection being gradually increased. The solution should not be allowed to flow forward into the anterior urethra.

Glandular urethritis: One of the most satisfactory methods of treatment for this obstinate condition is internal urethrotomy, being sure to adhere to the roof of the urethra and cut in the median line. The resulting scars tend to atrophy the glands.

Congested patches are best treated with the aid of the urethroscope. The red patch is brought into view and swabbed with nitrate of silver, two to eight grains to the ounce, then dried and swabbed again with glycerine. This should be repeated once a week.

Chronic inflammation of the seminal vesicles calls for massage and requires the utmost gentleness. The method advised by Fuller should be followed. If the patient shows evidence of tuberculosis or epididymitis, this method of treatment is contraindicated.

Finger, of Vienna, suggests the nitrate of silver and sulphate of copper in gleet of gonorrhœal origin. In recent cases, where gonococci are yet present, nitrate of silver should be employed; in inveterate cases, where no gonococci are present in the shreds, the sulphate of copper will often prove effective.

In all cases it is best to begin with solutions in order to test the reactive power of the urethra.

In chronic gleet the use of picric acid must not be forgotten. The drug is used in a solution of 1-200 or 1-100. It is generally forced past the compressor urethræ muscle by means of a deep urethral syringe or catheter. The quantity used is from ten to six drops. If fluid enters the bladder, no harm can result.

*NOTE ON THE TREATMENT OF FOLLICULAR TONSILLITIS.**

By Charles W. Dulles, M.D., of Philadelphia.

The frequent occurrence of tonsillitis at this time of the year prompts me to describe a line of treatment which I have adopted with such entirely satisfactory results that I can sincerely urge it upon my colleagues. These cases almost invariably come to my notice at a time when the crypts and follicles are plainly marked with whitish or chamois-skin colored materials, and after the preliminary indisposition and chilliness which often occurs in the first day or two of the disorder. Not infrequently this material presents an appearance which in the earlier years of my medical practice filled me with alarm; but larger experience has taught me to distinguish between the numerous small patches appearing simultaneously or almost simultaneously on both tonsils, and the continuous single patch, or few consecutive patches, of diphtheria. But, with our present knowledge of bacteriology, no inflammatory condition of the fauces is regarded as trifling, and it is useful to have a plan of behavior which is simple and apparently sufficient. It is many years since I have applied any strong antiseptic to a sore throat, because I have found that more than I ever obtained by

* Reprinted from the *Philadelphia Med. Journal*, Jan. 11, 1902.

his is obtained by the use of so simple a hing as a gargle of a saturated solution of boric acid.

My present plan is to act upon the bowels with small doses of calomel and soda (one-tenth and one grain respectively) every half hour, at once if the patient is seen in the morning, and to be postponed until the next morning if the patient is seen in the evening. At the same time I order a saturated solution of boric acid to be used as a gargle, or more properly as a wash to the throat by taking some into the mouth and protruding the chin and gently applying the tongue against the lower teeth so as to allow the solution to rest upon the surface of the fauces. For very little children I order instead the administration of lime-water every hour through the day. If this is administered a little while before the calomel is given, I assume that it does not form "black-wash" in the stomach, and in practice I have seen no interference with the action of the calomel under these circumstances. The object of both of these solutions is to hinder the development of micro-organisms and their products in the fauces and to avoid the necessity of measures which are very trying to little children. The results I have obtained by this simple treatment, combined with attention to matters of warmth and diet, have been so excellent that I have very little trouble in managing cases of follicular tonsillitis, and I have been equally fortunate in a similar management of cases of actual diphtheria.

In some older persons, where there is a good deal of pain connected with tonsillitis, I have found it of great advantage to administer salol and phenacetine, or salophen, in sufficient doses. This seems to lessen the pain very materially, and I am inclined to think it acts upon the systemic conditions present in such cases.

A most important point in the treatment of this, and other diseases, is to give a rest to the digestive tract, which shares in the variance from health. There is, in my opinion, no more common or more fatal blunder in the treatment of the sick than giving them food when they do not wish it. I have practised letting alone patients, old and young, when they did not wish to take food, so long and with such satisfactory results, that I sometimes enforce my recommendations by saying to caretakers that I have been trying for years to starve some one to death, but have never succeeded. In tonsillitis, I find it conduces to health to have no food given until and except when the patient, if old enough to speak, asks for it. Infants can, and usually do, arrange this exemption for themselves. So, I find that almost no medication, almost no food for a while, and the mildest sort of an antiseptic solution applied to the fauces in a simple way is followed by such prompt recovery that follicular tonsillitis, in my experience, soon passes away without giving much trouble. In some cases that I saw in adults last summer, with much pain and congestion, I found the application of dilute solutions of adrenalin chloride of seemingly great advantage. This, I therefore think a useful addition to our armamentarium.

*OBSERVATIONS ON SEVEN YEARS' USE OF CREOSOTE IN PNEUMONIA.**

By J. L. Van Zandt, M.D., Ft. Worth, Texas.

When I left college in 1866, I and been taught that the proper treatment of pneumonia was by means of blood letting and tartar emetic in the first stage, and, later, calomel and blistering. Nothing or but little was said of the *vis medicatrix naturæ*, and when Jim Miller, about four miles north of Dallas, got well, I congratulated myself that I had cured one case of pneumonia.

Within a year or two I read a work on practice, by J. Hughes Bennett, of Edinburgh, in which he laid great stress on

* Read before the Southwestern Tri-State Medical Association, at Dallas, Texas, and reprinted from *The Medicus*, Feb., 1902.

feeding and gave but little medicine, but yet his mortality was much less than I had seen elsewhere reported. Later I read a little work, "Nature and Art in Disease," by Sir James Forbes. Then it dawned on me that a large per cent. of cases would get well with or without medicine if we could only keep them alive long enough. In other words, pneumonia was a self-limited disease and would run its course if not interrupted by death.

It is true I gave medicine from the beginning of the attack, hoping to modify the disease, though I had no hopes of aborting it or materially shortening its course. For a long time I gave carbonate of ammonia to all cases, and, later, except in asthenic cases, I gave salicylate of ammonia. I believe the disease was distinctly modified by these remedies. Not until long after I began the use of salicylate of ammonia did I know that the salicylates had been vaunted as a specific in the disease. I did not give in sufficient doses for this and so got only a modifying effect. I believe that measles was about as amenable to an abortive treatment as was pneumonia.

So you will see I was not looking for a *cure* for pneumonia when I gave creosote to my first case, one with enteric complications, and was as much surprised as anyone at the result.

A shrewd aunt of mine said, when I was a small boy, that I would learn better from observation than from books. From books I learn that pneumonia is a self-limited disease and must run its course. From observation I learn what is "better," that in a large per cent. of cases creosote has a decidedly curative, I might say, an abortive effect.

In a former paper (*N. Y. Med. Record*, March 30, 1901), I gave extracts from a number of writers who enthusiastically claimed the curative effects of creosote in pneumonia, also reported sixteen consecutive cases of my own, treated during the winter of 1899 and 1900, of which four were dismissed on the second day, five on the third, and one on the fourth, (10 or 62½ per cent. by the end of three days), one each on the fifth, sixth, seventh and eighth, and two on the tenth days. Since that time I have lost only one case. That I shall mention later.

As further evidence on the curative effects of creosote, I will give some extracts from personal letters received since my last paper was written. Prof. Andrew J. Smith, of New York, says: "I have long felt that in all probability, the pneumonia of crisis belonged to the infection with pneumococci, while lysis indicated a mixed infection. This applies, however, only to cases not treated with creosotal or other germicide. I believe such treatment is capable of causing an early lysis, before the time for crisis arrives, say by the second or third day the fall would begin. I have seen many such cases, and have rarely seen a crisis when the remedy was begun early."

Dr. A. H. Davidson, of Boerne, Texas, says: "I saw your first report on creosote in pneumonia (1898) and since then have used it in all cases with good results."

Dr. Emma H. Yates, of Ander, Texas, says: "You taught us that creosote gave startling results in pneumonia, and I have certainly found it so. I have been agreeably surprised that my patients did so well. I seldom needed to make a second visit. At first I doubted my diagnosis when they recovered so speedily, but I could not confirm my doubts. I was positive the diagnosis was correct." Having to make long trips to the country, she says she left medicine with instructions to send report the next day, and reiterates that she seldom had to make a second visit. She had been practicing only two years and had only ten or a dozen cases, but had been well pleased with results in all.

May 11th, about six weeks after the publication of my last paper, Dr. Geo. H. Sanborn, of Henniker, N. H., wrote to "personally thank" me for it. The day after reading the paper he sent to Boston

or the carbonate of creosote, and in a few days was called to see a lady æt. 45, sick two days, pulse, 120, respiration 40, and temperature 105, with rusty sputum. He gave creosote carbonate and went back next day and dismissed his patient, thinking he had made a mistaee in diagnosis. He was called back the same evening to find the symptoms as bad or worse. He resumed giving the creosote and had a speedy recovery. Further, he says he had treated three other cases, all getting well, in a very short time. The last case was a man 50 years old, temperature 105, respiration 50, and pulse 140, "raising large quantity of rusty sputum." This was the evening of the first day's illness. He gave creosote, and at his visit the next morning the wife met him at the door and said, "Well, Doctor, I guess you make a mistake about that being pneumonia. My husband is all right this morning and is hungry." The Doctor, to use his own words, "did not propose to run any chances, and did not omit the medicine," but continued it for three days at longer intervals, and the patient was at work in a week. He then goes on to contrast this with his former experience and with the teaching of the books.

It will be noted that my report of cases shows an unevenness of results, 25 per cent. of cases being dismissed on the second day, 21 per cent. on the third day, and yet 12½ per cent. went on to the tenth, though in all the protracted cases the disease was distinctly modified.

One writer says: "When given early in the attack the results are almost specific." While admitting the beneficial effects of early giving, I have seen as decided effects when given later, on all symptoms save the color of expectoration, as when given early. It has occurred to me, from my own and the observation of others, that the difference of results was due not so much to the time of giving as to the difference in the infecting microorganism. I have been impressed with the idea that the pneumococci infected were the most amenable to treatment, but a lack of microscopical equipment has prevented me from putting this impression to the test.

Since I began using the *carbonate* of creosote, October 29, 1899, I have had but one fatal case of pneumonia. That was April 7th, last, and to that patient the carbonate of creosote was given early and freely and seemingly with no effect whatever. This case, while in a measure having the appearance of an ordinary attack of lobar or croupous pneumonia, had some very peculiar features. He was taken with a chill about 3 A. M. I saw him six hours later. He had pain in the side and cough and was expectorating a rust-colored sputum. I diagnosed a pneumonia but did not at the time locate the pulmonary lesion. Later, however, I found the posterior part of the left lung involved from top to bottom, while the anterior part and the whole of the right one seemed to be entirely free from disease. These conditions continued throughout the attack, which lasted almost twenty-one days. All this time could be heard posteriorly tubular breathing, associated with fine and coarse crepitation. The expectoration varied very little.

In May last, while on a visit to Marshall, Texas, at my suggestion Dr. J. F. Roseborough gave carbonate of creosote to a very irregular case of pneumonia, and though the patient recovered, I am very sure the creosote did not help him. About the time this patient was convalescing, a brother was taken sick, and after five days of high fever developed pneumonic symptoms. This patient, though given carbonate of creosote freely, died.

The conclusions I have reached are these: A large per cent. of pneumonic cases are cut short or aborted, almost all the rest are mitigated, and the remainder, a very small per cent., are not at all affected by the remedy.

I have been thus particular to dwell on these unfavorable cases for two reasons.

Honesty requires it, and should one of, you who has not already done so, be disposed to try the creosote and find first one of the non-yielding cases, he might be disposed to discredit the whole thing.

As illustrated in Dr. Sanborn's first case, it has been found that the medicine must not be omitted so soon as active symptoms have subsided, because there will almost surely be a recurrence, as I have known quite a number of times. The medicine should be continued in less quantity or greater intervals for at least three days. In broncho pneumonia a longer time is generally better.

A few words with regard to the particular preparation and dose and I am done. My original formula was made by adding one drop of creosote to my then common dose of seven and a half grains of salicylate of ammonia. This combination I continued to use in most cases till 1899. In some, creosote was given without the salicylate, because of great prostration or gastric irritability. I lost, as I now remember, two cases of my own, and two turned over to me "in extremis." Some of these I think might have been saved by my present medication.

In 1899, I read an abstract of a report of a case treated with carbonate of creosote, by Cassoute of Marseilles, France, and as it furnished an easy and pleasant way to increase my dose of creosote, I at once adopted its use and have found no difficulty in giving it in any desirable dose to any patient. It is almost devoid of taste and odor and may be given in emulsion or stirred in hot sweatened water to be taken during agitation as it does not dissolve. The emulsion is an ideal way particularly for small children, Do not mix with alcohol or acids, as these will develop the taste and odor of creosote.

It may be asked, may not guaiacol or its carbonate be used instead of carbonate of creosote. I think not. Thinking to test the matter I gave thiocol, a preparation of guaiacol, in one case, but my patient grew steadily worse as the disease advanced, until, after about three days, I substituted carbonate of creosote, and in twenty-four hours a marked mitigation of symptoms occurred. I have not had the courage or disposition to experiment further.

Dr. W. A. Vaughn, of Virginia, writes me that he has treated a number of cases with guaiacol or its carbonate and saw no material difference between them and cases treated expectantly. Prof. W. O. Bridges, of Omaha, Neb., gives a clinical report of cases treated with carbonate of guaiacol in which results were nothing like so favorable as I have seen and others have reported from carbonate of creosote.

I am aware that some gentleman, whose name and address have escaped me, has reported quite a number of cases treated with the two remedies indiscriminately and without noticeably different results. He spoke highly of the treatment.

Dose: To an adult I have been in the habit of giving seven and a half to ten grains or minims every three hours, in urgent cases giving more frequently for a few times. Some have recommended one dram night and morning, while others have put the daily amount at two and a half to three drams. Dr. Sanborn, whose report of cases I have given, gave one drop every hour. It may be that some of us are giving more than necessary and that better results may be had by giving smaller doses at shorter intervals. In some cases I formerly got good results from one drop of creosote alone every three hours.

Ordinarily I use the carbonate of creosote without other medication. I never use expectorants or nauseants. Occasionally a few doses of some anodyne are given in the beginning of painful cases, and strychnine where indicated.

Obstinate Constipation.—

℞ Extr. physostigminæ,
Extr. nucis vomicæ,
Extr. belladonæ, āā..... gr. i
Extr. Aloes.....gr. viij
M. ft. in pil. No iv.
Sig.: One pill *t. i. d.*

—Bartholow.

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Editorial.

FEW CONDITIONS are more distressing to the patient and more discouraging to the physician than atrophic rhinitis. So many and varied have been the remedies recommended for this affection that the experience of so careful an observer as Dr. SEILER, abstracted in this issue, is very valuable. After all, the most important thing to do is to so treat the patient during the hypertrophic stage of his rhinitis as to prevent the secondary retraction and atrophy of the mucous membrane.

* * *

WE QUOTE in this number a very timely warning from the *Med. World* on the dangers and misuse of formaldehyde. When properly diluted and correctly applied, this drug will prove of inestimable value. In view of the danger of poisoning, it is well to know that ammonia in the form of the officinal water or aromatic spirits acts as a chemical antidote by forming with the formaldehyde an innocuous product known as urotropin, which is used as a genito-urinary antiseptic. When sold in quantity, it would be advisable to state the chemical antidote on the label.

* * *

THE TREATMENT of intestinal obstruction by the hypodermatic injection of large doses of atropine is still in the experimental stage. While many successful, and in some cases brilliant, results have been achieved, quite as many dismal failures, with symptoms of intoxication, have been recorded. It seems to us that the indications for its use depend upon the diagnosis of the nature of the obstruction, cases of mechanical obstruction—adhesions, bands, stricture, pressure—being clearly of a surgical nature.

* * *

GONORRHEA, like the proverbial bad penny, is always with us. Our readers will find a most practical and logical method of treatment in the article by Dr. JOHN V. SHOEMAKER, reprinted from the *Medical Bulletin*. The writer lays special stress upon rest, hygiene and diet, three factors which are generally overlooked in the physician's anxiety to resort to irrigation and medication.

* * *

IN THE ARTICLE on General Medical Treatment of Syphilis, the author, Dr. J. FRANK LYDSTON, does well to lay stress on the important fact that more than specific medication is necessary for the intelligent and successful treatment of the disease. Our readers will be well repaid for reading this practical and common-sense article.

* * *

THE ARTICLE on Gleet, by J. HUBLEY SCHALL, shows very clearly how important and necessary a correct diagnosis is for the proper treatment of this most obstinate condition. Indiscriminate irrigations and injections will fail to accomplish any purpose; unless the medicaments come in direct contact with the diseased areas the case is hopeless. Attention is called to the use of picric acid in strength of 1-200 or 1-100 as a valuable adjunct to other means.

* * *

THE TREATMENT of follicular tonsillitis, as outlined by CHARLES W. DULLES, and quoted by us from the *Philadelphia Medical Journal*, is exceedingly simple and rational. Judging from the treatment of this condition by most practitioners, it would seem as if the giving of tincture of

the chloride of iron were a specific, whereas, in reality, it is disagreeable and ineffective at best. There can be no question as to the advisability of giving anti-rheumatics to older children and adults, and the doctor so advises. It may be well to remind our readers of the excellent results, published in one of our former editions, obtained by Dr. Floersheim with the tincture of iodine.

* * *

Of prime importance to the pregnant woman is the care of the nipples previous to and after the birth of the child. The exercise of care and cleanliness previous to parturition will spare the patient much subsequent pain and suffering and the physician many anxious moments. The main object should be directed to making the nipples firm, erectile and free from abrasions of any kind. Alcohol or any form of spirits is too apt to dehydrate the tissue and cause cracking. Oily applications in the form of albolene, cocoa butter, sweet or castor oil are preferable; these, combined with gentle massage daily, will place the nipples in proper condition for the new arrival. For the fissure, should it arise, silver nitrate, balsam of Peru, ichthyol, and glycerite of tannin, combined with mechanical contrivances, may be tried in turn.

Treatment of Erysipelas.—Wash with ether to remove grease, apply gauze, and on this a thick poultice of sodium sulphate wet with cold distilled water. The salt acts by excluding oxygen. Ice water is applied to prevent multiplication of germs. Six to eight hours is required to effect a cure.—Curtis.

To Prevent Marking in Small-pox.—Dr. Campbell has had large experience with small-pox, and says he knows nothing better than the application of tincture of iodine twice daily for two days and then once a day until the pustules have arrived at maturity and dried. Then almond oil should be applied two or three times a day until the crusts fall off.—*Medical Summary*, January, 1902.

Current Literature.

Care of the Nipples.—The recently parturient woman is very sensitive in every respect; and if the nipples need attention, it is well to use applications which are not repulsive in odor or application, and are not unnecessarily painful. Among these may be mentioned tannated glycerin, sweet oil and lanolin; the two latter may also be tannated. Attention to nipples should be given months before confinement. It is generally well known that no medicinal agent or combination will heal a cracked or ulcerated nipple when a babe nurses every two hours; and when these neglected cases are seen we would better use the nipple shield temporarily, with mild antiseptic unguents, and hope that nature may heal the tender tissues. It is always to be remembered that no actively poisonous antiseptic should be used, and that explicit directions be given as regards washing the nipple every time before nursing, with boiled water and clean soap. A little care will prevent a mountain of trouble for the physician, and untold suffering for the mother.—*Medical World*, January, 1902.

Atropine in Intestinal Obstruction.—H. Greble (*Münchener Medicinische Wochenschrift*, Aug. 13, 1901) reviews the literature of the treatment of intestinal obstruction by atropine. Dealing first with obstruction of a paralytic or spastic nature, he finds that internal remedies are of use, and that the most common drugs employed are opium, atropine, and morphine. Apart from its quieting effect on the bowel, which is due to a paralysis of the nerve endings in the involuntary muscular tissue, atropine causes a general distribution of the meteorismal pressure, and probably also a diminution of the intestinal secretion. Opium causes frequently severe gastrointestinal disturbances, and appears to act in direct opposition to the enemata which are necessary in these cases. Furthermore, atropine produces

intoxication symptoms (delerium, excitement, difficulty in swallowing, etc.) very easily. The chief objection to the use of both drugs, the author says, is that they tend to mask the symptoms and prevent a proper estimation of the progress of the condition from being made day by day. He therefore considers that morphine, which quiets the intestine without producing such lasting or severe effects as the other two drugs, is the best drug to employ in paralytic obstruction. But when one is dealing with mechanical obstruction, as in strangulation by kinking, twisting, by bands or pressure from without, there can be, in his opinion, no doubt that the application of atropine is a grievous mistake. To exemplify this danger of atropine treatment he quotes a case which has recently occurred in his practice.

The writer concludes by stating that for paralytic intestinal obstruction morphine is preferable to atropine, and for all other forms surgical interference is the only reasonable method of treatment, provided that simpler mechanical means have failed, such as enemata, olive oil taken internally, etc.

In the same journal V. Pritchard reports a case of obstruction due to gall-stone, which he believes was cured by atropine. The symptoms were typical and resisted treatment (carried out by the patient or his friends) by enemata, etc. Chlorodyne, hyoscyamine, and strychnine were given one after another, and then atropine sulphate and two ounces of olive oil were given. On the fourth day of illness the patient passed a copious stool, which contained a gall-stone of the size of a walnut.

Aronheim also reports a case in the same number. His patient was fifty-one years of age, and was said to be suffering from paralytic obstruction. There was no tympanites. Abdominal compresses (salt water, ice, etc.) and morphine were given, and enemata. Movements of the bowels were felt on the third day, but no wind or feces passed. The same day he ordered atropine, and had the satisfaction of hearing in the evening that a copious motion had been passed.—*Therapeutic Gazette*, January 15, 1902.

Acute Gonorrhea.—John V. Shoemaker (*The Medical Bulletin*, January, 1902) in a lecture delivered at the Medico-chirurgical Hospital, said: In treating the acute stage of gonorrhea recumbency is a valuable aid to other methods, and should be recommended wherever practicable. A prone position does much in relieving inflammatory congestion. The patient's diet should be of a simple nature. No condiments, alcoholic liquors, fried or fatty foods, pastry, asparagus, or acid fruits should be eaten, and, in fact, the more closely the victim can approximate to a milk diet the better will be his chances of recovery.

Painful urination is lessened by the free ingestion of water, and, in order to alkalinize the secretion, Seltzer, Apollinaris, Vichy, or similar waters may be used. The penis must be kept scrupulously clean, and measures must be taken for collecting the discharge by absorbent dressings, but these should be frequently changed, the contaminated ones being destroyed and replaced by fresh pieces. The retention of discharge by unfit dressings may aggravate the condition.

The patient must avoid association with the opposite sex, and must strive to banish from his mind all lascivious thoughts. Immersion of the penis in a bowl of hot water during the act of micturiton often affords a decided and welcome relief to the pain of that act. It is a temporary relief to the congestion, and is furthermore useful as a means of cleanliness. The bowels should be kept a little free and the patient should sleep in a well-ventilated room and upon a mattress. All these precautions have a beneficial effect, and are of assistance to the medical course.

A diluted and alkalinized fluid is less irritant to the exquisitely sensitive, inflamed urethra than an acid and concentrated fluid, but if we can impregnate the

renal secretion with an antiseptic agent we will render it, to a certain extent, remedial to the tract which it traverses. This object we partly accomplish by the use of antiblennorrhetics. Cubeb, copaiba, and sandal-wood oil have long been justly esteemed as of value. They are eliminated largely by the kidneys and escape from the body in the urine. Copaiba has the disadvantages that it is very apt to disorder the digestion after it has been used for some time, and that in large doses it irritates or inflames the kidney. It must, therefore, be administered with caution, and is less adapted than cubeb to the crescent, or highly inflammatory, stage. Copaiba, or its oleoresin, is given in emulsion, and is profitably combined with liquor potassæ or an alkaline salt, and spirit of nitrous ether; a small quantity of morphine is often added in order to alleviate pain. Cubeb, belonging to the pepper family, is better borne by the stomach, and is applicable to the acute stage. Both the powder and the oleoresin of cubeb are employed. The oil of sandal-wood is a valuable remedy, and may be used with benefit in the acute stage. In the period of decline copaiba and cubeb are often administered in combination.

In the increasing stage of gonorrhea aconite is a serviceable remedy. It diminishes the turgescence of the mucous membrane. Aconite is given in 1- or 2-minim doses of the tincture every one, two, or three hours until physiological effects may be noted, when it may be suspended. Belladonna is likewise of advantage at the same early period, and, as a synergist, may be combined with aconite. Belladonna is also given in the form of tincture and in doses of 2 or 3 minims. Small quantities of antimonial wine or tartar emetic are likewise of value.

Another remedy which in its elimination exercises an antiseptic influence upon the urethral mucous membrane is salol, in the dose of 5 grains four times a day.

When chordee is a prominent feature a favorite prescription is a union of powdered opium and camphor, or monobromated camphor, in the form of a suppository, inserted at bed-time. Potassium bromide is also esteemed in this distressing condition. This agent may replace liquor potassæ in the emulsion of copaiba or cubeb to which I have alluded. Other drugs which have been used for the purpose of alleviating this manifestation are gelsemium and lupulin.

In the effort to counteract the effects of the gonococcus and allay urethral inflammation it has long been customary to inject astringent or antiseptic solutions into the canal. Among favorite substances which are thus employed may be named lead acetate, zinc sulphate, boric acid, corrosive sublimate, silver nitrate, and preparations of vegetable astringents, such as krameria, catechu, kino, hamamelis, geranium, etc. Mixtures or emulsions of a bismuth salt are recommended by some writers. Naphtol and resorcin likewise have their advocates.

It is advisable to postpone the employment of injections until the activity of the acute stage has somewhat abated, as they may easily aggravate instead of mitigate the disease. When, by the use of such measures as I have pointed out, the inflammatory process has entered upon its second phase, we may begin with weak injections, which we may gradually strengthen according to the needs or indications of the case.

In the man before us we witness the first period of gonorrhea, and we will best serve his interests by the use of means which will diminish the local inflammation and neutralize the work of the gonococci. In this instance I shall therefore prescribe:—

℞ Salolis..... gr. v.
Tincturæ belladonnæ..... ℳ ij.
M. et ft. capsul. No. j.
Sig.: One such capsule to be take 4 times daily.

This, together with the hygienic injunctions to which I have alluded, shall constitute the sole treatment for the present.

When the discharge shall have somewhat decreased and the pain lessened he shall have as an injection:—

℞ Zinci sulphati ʒ..... gr. iv.
Plumbi acetatis..... gr. x.
Aquæ hamamelidis dest..... f℥ss.
Aquæ rosæ..... f℥iiiss.
M.

Atrophic Rhinitis.— Dr. Carl Seiler is quoted by the *Medical Summary*, January, 1902, as saying: "After a number of years of fruitless experimentation I came to the conclusion, or rather was forced to it, that the proper and effective treatment for atrophic rhinitis consisted, first, in the removal of the dried secretions of the mucous membrane in the nose, not by forcible removal with instruments or a stream of a liquid or antiseptic solution under high pressure, as from the nasal douche or the post-nasal syringe, but by the gradual solution and loosening of them by a solvent in liquid form, to which should be added some of the ethereal antiseptics, such as menthol, eucalyptol, etc., to overcome, if even only temporarily, the objectionable, and to the operator often sickening, odor of ozena; secondly, after the scabs have there been removed, in the re-establishment in some way, to as great an extent as possible, of the normal capacity and configuration of the anterior nasal breathing channels, at the same time supplying the necessary moisture to be absorbed by the inspired air as in the normal condition; thirdly, in producing a regeneration of the atrophied turbinate tissues by some kind of stimulation to the mucous membrane which would in time re-establish the normal functions of the nose and even permanently remove the almost invariably present ozena.

Formaldehyde and its Antidote.— The *Medical World* (January, 1902) remarks that in view of the rapidly growing use of formaldehyde, it is well to note the fact that the drug is poisonous when ingested in quantity. The statement that it is absolutely non-poisonous, even though so intensely irritating, has been so repeatedly made that many physicians are now prescribing it carelessly. We learned a short time since of a prescription calling for dram doses of formaldehyde internally; the dose would have killed the patient if given. Though so powerfully antiseptic even in dilute solutions, it is not probable that it will ever be found a suitable agent for internal administration. It will prove to be one of the best of moist surgical dressings; costing little; not acting deleteriously on instruments; easily carried and everywhere obtainable; absolutely non-poisonous when used externally; and producing results not exceeded by the offensive iodoform, though absolutely in itself inodorous. Its water-white color, and the extravagant claim above mentioned, will probably lead to neglect on the part of profession and laity in handling the drug with due discretion. The only antidote known as yet is ammonia in dilute solution. The aromatic spirit would be the ideal form to use if at hand.

For moist dressings, two drams to the pint of water are ample, and less will often do as well. We condemn its administration internally unqualifiedly and positively. We advise that every bottle bear a red label and be plainly marked "Poison." We bless its advent for an external moist dressing, and like Pare, doubt if there will ever be found anything better.

Paris Green Poisoning.—W. C. Whitney, in speaking of the above in the *Medical World*, writes: Allow me to call attention to the efficacy of chlorate of potash in cases of poisoning by Paris green. In nine recorded cases I have not had one which proved fatal, though the quantity of poison ingested varied from 1 teaspoonful to ½ teacupful, the latter quantity producing inflammation of stomach and bowels (acting as a cathartic) and, of course, requiring subsequent treatment suitable to those conditions. I have not seen any account of the use of chlorate of potash in Paris-green poisoning in the text-books or medical journals; so I have

taken the liberty to mention it, as it is nearly always at hand, whereas it is not always an easy matter to obtain hydrated sesquioxide of iron freshly prepared. I use a saturated solution of the potash (4 to 6 ounces) at frequent intervals as long as the matter returned from the stomach shows any signs of the poison. The color of the poison will be changed to a dark brown or black by the potash. I am not sure of the chemical changes which take place, and would like to be informed. I am sure of the effect.

Hedonal in Insomnia.—G. C. H. Meier (*Virginia Medical Semi-Monthly*, Dec. 13, 1901), in an article on the treatment of insomnia by hedonal, one of the more recent hypnotics, states that this drug possesses one very important advantage over all the other hypnotics mentioned—namely, its perfect safety, which is due to the fact that it is completely oxidized in the system, the products being water and carbonic acid. For this reason the occurrence of cumulative effects or habituation is entirely excluded.

From what I have been able to learn only three reports have appeared on this drug by American authors (H. Fairchild, W. H. Walling, A. E. Brownrigg), although the remedy has, however, been sufficiently tested in some of the leading neurological clinics and asylums of Germany and Austria to permit deductions as to its scope of utility. Among these the most complete studies have been made in the clinics of Professors v. Krafft-Ebing, Vienna; Eulenburg, Berlin; Mendel, Berlin; v. Koranyi, Buda Pest, and Obersteiner, Doebing. It may be of interest to briefly refer to these. In Eulenburg's clinic the most satisfactory results were observed in the insomnia of neurasthenic persons, of which a considerable number were treated. The conditions in which it proved most successful in v. Krafft-Ebing's clinic were neurasthenia, hysteria, and sleeplessness from mental overexertion, and the observations made in v. Koranyi's clinic practically correspond to these. In Mendel's clinic cases of sleeplessness in the course of functional diseases of the nervous system, such as hysteria, neurasthenia and hypochondriasis, were most benefited. Obersteiner is particularly impressed with hedonal in cases in which it is necessary to alternate with different hypnotics, while, according to experiments made in Professor Riegel's clinic, the drug is generally indicated in the various forms of sleeplessness unattended with pains. The observations made in Professor Amminhaus' clinic, Freiburg, were somewhat less commendatory, its use being reserved for exceptional cases as a substitute for other hypnotics, which are regarded by the author as more reliable.

From all these reports it may be concluded that hedonal has the great advantage of being a perfectly innocuous hypnotic, this being due to the fact that it is completely split up in the organism into carbonic acid water and a small amount of urea. Being a derivative of urethane, it was at first thought that the new remedy might share the diuretic action of the former, but actual experience has shown that this is not the case.

An Analgesic-Antiseptic Powder for Some Skin Affections.—With a view to relieving pain and itching, as well as protecting and healing the parts, W. R. Dalton, New York, finds (*St. Louis Medical Review*, Jan. 4, 1902) that in the treatment of many skin affections, particularly of the ulcerative varieties, some protective dressing must be used, not only to keep the parts aseptic, but also to relieve the principal complaint—itching. Most of the dressings now in vogue are efficient as such, but they do not relieve the patients of the symptom, particularly in chronic cases, for which they come for treatment. Lately the writer has been using a mixture of boric acid and chloretone. The latter is formed when caustic potash is slowly added to equal weights of chloroform and acetone; and has sufficient anesthetic

power to relieve the itching and pain of most acute and chronic ulcerations. To its local anesthetic effect is added an antiseptic influence which is sufficiently aided by the addition of boric acid for all practical purposes, to render the combination a safe and satisfactory application, without interfering with the life of the granulating cells. He has so far used this boro-chloretone in two hundred and two cases with such gratifying results that he thinks it worthy of wider use. Of the inflammatory affections of the skin, urticaria and prurigo, in which the itching is so troublesome, are readily relieved without increasing the inflammation. In eczema, especially of the intertriginous and vesicular tppes, and in parenchymatous dermatoses, the mixture has given excellent results. Of the neoplasmata in which there is itching or pain, lupus erythematosus (so-called), receives the greatest relief. So far he has used boro-chloretone in ninety-seven cases of hard and soft chancers, and the results have been just as good as those obtained by the use of odorous prepararations, its obtunding influence making it superior to them. In ulcerations it seems to hasten granulation, its benumbing influence not interfering with the healing process.

To Remove Gunpowder Stains.—The removal of powder stains is generally considered impossible, yet it is often a cosmetic necessity for which the physician may gain a handsome fee in event of success. In recent cases the free and repeated application of pure dioxide of hydrogen will generally prove satisfactory. In cases of longer standing, paint the surface with ammonium iodide, one ounce; distilled water, oue ounce. This solution will gradually change the black stains to a reddish color; after the red tint developes, paint the surface with a solution of dilute hydrochoric acid. It will be understood that the latter treatment is only applicable to cutaneous surfaces; but the peroxide may be used freely on mucous surface.—*Detroit Med. Journal*, Jan., 1902.

Book Notices.

A Brief Manual of Prescription-Writing, in Latin or English, for the use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. Neff, A.M., M.D., Cedar Rapids, Ia. Pages v-152. Size, 8x5¾ inches. Extra Cloth, 75 cents, net, delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

The novel points of this work are: the inclusion of a condensed but surprisingly adequate treatment of medical Latin; the brief discussion of incompatibility by means of a tabular view; the appending of a large number of convenient blanks for formulae. We are inclined to think that there is too close adherence to the antiquated four-storied prescription and altogether too little attention is given to the metric system. While the apothecary's system should be retained for those long accustomed to it, text books of this nature, especially, are intended for students and recent graduates, and instead of teaching them how to translate from grains and drachms into grams they should learn the decimal system as an idiomatic mode of expressing their wishes to the apothecary, and should be taught just enough of the apothecary's system to understand what quantity is meant when grains are mentioned. With this part of the book brought up to date it would be an admirable text book. B.

Elements of Latin for Students of Medicine and Pharmacy.—By George D. Crothers, A.M., M.D. and Hiram H. Bice, A.M. F. A. Davis Co., Philadelphia, New York and Chicago, 1900. Cloth, 242 pages, unillustrated.

Both of the authors are instructors of Latin and Greek in High Schools, and their book, though condensed, is much fuller than might have been anticipated. It is arranged in the customary form of modern Latin primers, with exercises in translating, paradigms, declensions, etc. Improperly prepared students who wish merely a few trick phrases in Latin to

place on prescriptions, will probably find some trouble in selecting just the information that they want. Those who really wish to understand anatomic terms and to be able to write prescriptions in Latin and to follow the Latin pathologic descriptions formerly used in all countries and still in vogue on the continent of Europe, will be greatly pleased with this book. A list of anatomic proper names and frequently used Greek prefixes will be found of the utmost convenience. We would urge practitioners whose preliminary education has been neglected, to buy and study this book. The short chapter on Roman pronunciation, may well be skipped, as medical Latin is still usually pronounced according to English methods, although there is no more sense in mispronouncing Latin than any other language. B.

Studies in the Psychology of Sex—Sexual Inversion.—By Havelock Ellis, L.S.A. (England); Fellow of the Medico-legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; general editor of the Contemporary Science series since 1899. The "Studies in the Psychology of Sex" will probably be completed in five volumes. "Sexual Inversion" is second volume in the series. Pages xi-272. Size, 8⅝x 5¾ inches. Extra cloth, $2.00 net, delivered. Sold only to physicians, lawyers, advanced teachers, and scientists. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

The first volume of this series included Modesty, Sexual Periodicity and Autoerotism. This volume deals with those unfortunate persons who, to use the often quoted and much criticized epigram, have a soul of the opposite sex to that of their body and who are, therefore, attracted sexually, to their own sex. A sharp distinction is drawn between one type of the "psycho-sexual hermaphrodite" who gratifies himself by any form of contact that will afford physical satisfaction and genuine invert. The book is notably lacking in anything that would appeal to the salacious or disgust the moral or even aesthetic reader. Many inverts have led pure lives and have expressed their affection in philanthropy. The tendency of the entire work, whether so intended or not, is to make us regard the sexual invert merely as one who is sexually color-blind. Subjectively, most inverts confess themselves peculiar but ask us to remember that their affection for their own sex, even if expressed physically, is no more essentially impure than normal passion for the opposite sex. Conversely, normal passion is disgusting to them. As one invert sagely remarks, he is unfortunate not only in differing from the established sentiments of the world but in the fact that, however decent and fitting homo-sexual passion may seem to himself, he is still forced to recognize its futility as opposed to normal lust which has procreation as a refining element and also the organic, anatomic obstacles to complete physical satisfaction. Few inverts have gone so deeply into the psychologic aspect of their condition, though very few regard themselves as distinctly pathologic.

The author believes in the congenital nature of most cases, holding that seduction and other apparent exciting causes would not act, or would act only transiently, without the innate tendncy. At puberty, both sexes, especially in schools and similar institutions, quite generally manifest homo-sexuality as a phase of undifferentiated sexual yearning. This is especially marked in girls, but it is usually sentimental rather than physical and is often entirely innocent, the participants failing entirely to recognize its sexual element.

Ellis condemns Schranck-Notzing's prescription of forced education in brothels, to "normal" conditions or at least, habits. He points out that not only is such a method immoral from ordinary standpoints but it shocks the sentiment of the genuine invert as much as sodomy would a normal individual. A real conversion of the sexual nature is rarely possible and "inversion in eccentric and neurotic families seems to be merely Nature's merciful method of winding up a concern which, from her point of view, has ceased to be profitable." B.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Leading Articles.

DIARRHEAL AFFECTIONS IN THE ADULT—THEIR TREATMENT.

By M. A. AUERBACH, Ph.G., M.D., New York.

During the hot months of summer the general practitioner has to deal with, as a rule, in the adult, three classes of diarrheas, namely, simple acute catarrhal enteritis, chronic catarrhal enteritis and cholera morbus.

Simple acute catarrhal enteritis is a diffused inflammation which pervades more or less of the small intestine and the upper portion of the larger bowel. More circumscribed inflammations are described, and no doubt sometimes occur, but it is difficult to localize them.

The cause of this form of diarrhea is over eating and drinking, or the swallowing of mineral substances of an irritating character. Impurities in drinking water, and unripe fruit in the summer and autum are a frequent cause. The toxic products of fermentation and decomposition are also causes. These sometimes arise inexplicably from substances commonly harmless, such as milk, or preparations thereof. Cream puffs and even ice creams, are among these. Although hot weather favors intestinal catarrhs, they are not so much the direct result of the heat, as of effect in weakening the resisting powers of the person, thus favoring the decompositions and fermentations above referred to.

The most permanent symptom is diarrhea involving the part of the intestinal tract named in my definition. The resulting stools consist of, first, ordinary fecal contents of the small and large intestine, including bile; but as they continue they become more and more watery, almost colorless. There may be but two or three, or they may equal twenty or more in number. They will contain more or less mucus, and are often frothy and associated with flatus. With diminished consistence, the odor may grow less, until totally absent. On the other hand, it may remain persistently offensive.

Next to diarrhea is pain, usually colicky, varying greatly in degree, often indeed in the milder forms absent. There is rarely tenderness, but palpitation may elicit gurgling and the signs of distention due to gaseous formation. Thirst as a natural consequence of the free discharge of water, is always present. There is usually very little fever, the rise of temperature rarely exceeds one or two degrees, and the higher grades suggesting a specific inflammation of the bowel. The appetite, at first little altered, ultimately fails. Very rarely do the ordinary diarrheas in adults terminate in collapse.

Treatment.—Many cases of acute catarrhal enteritis recover under rest and restricted diet, the degree of which necessarily depends upon the severity of the case. The simple withdrawal of all food, the substitution of plain milk, or in severe cases boiled milk, for the usual food, generally suffices. Ten to fifteen grains of dermatol, administered every three to four hours, preceded by a dose of castor oil, usually terminates the case in from one to two days. No attempt should, however, be made to lock up the bowel until all irritating matter has been removed.

Chronic catarrhal enteritis.—A chronic inflammation of more or less of the large and small intestine, with or without ulceration. Chronic enteritis may remain after repeated attacks of the acute form, or it may arise independently, however induced, favored by whatever occasions passive congestion. Such favoring causes are diseases of the liver or heart, feeble and anemic states, and the defective nutrition consequent thereon. Chronic exhausting diseases like tuberculosis and Bright's disease may act in this way also. Dysentery is a frequent cause of chronic intestinal catarrh, a remnant of the acute process.

These symptoms, however, are not always uniform. While there is often more or less diarrhea, this is as often absent or substituted by constipation, while constipation and diarrhea frequently alternate. More characteristic of the stools is the large amount of mucus contained in them. This may be present in the shape of sago-like masses of mucus granules, yellow or brownish yellow, bile stained, also from the small intestine. Bile stained mucus is only present when there is abnormally rapid peristalsis of the larger bowel, which causes the mucus to be passed out before the bile is decomposed. Ulceration may be associated with the presence of blood in the stools.

A variety of chronic colitis known as mucus colitis or membraneous enteritis is characterized by the discharge of large masses of mucus, forming at times complete casts of the bowel. It is said to be more frequent in women. It may also occur in children. Women of the nervous type are more readily affected. It is commonly associated with constipation. At intervals, however, occur attacks of abdominal pain and tenderness, sometimes accompanied by tenesmus and followed by discharges of the mucoid matter referred to above. Such attacks may be excited by mental emotion of various kinds. The mucoid material itself seems to be the direct result of an increased activity of the mucoid glands, which, with the mucus membranes, are, however, commonly intact after separation of the larger mucus casts. Throughout the numerous attacks, nutrition is commonly well maintained, and the afflicted subject appears plump and well-nourished. At other times there is a gradual emaciation and ultimate death.

The prognosis in all forms of chronic intestinal cararrh is grave so far as recovery is concerned; the treatment avails little in many cases. The disease extends over months, and even years, before the patient responds to treatment, recovery being sometimes complete.

We must remember that chronic intestinal catarrh is seated mainly in the large intestine. It is clear that to reach it with remedies administered in the ordinary way is difficult, and that it is more than likely that such remedies are absorbed or decomposed before they arrive at the seat of the disease. It is barely possible that by the administration of certain drugs in large quantities, such as nitrate of silver, a certain proportion will, after a while reach the seat of ulceration and stimulate it to heal. Much more rational is it to select a diet with a minimum of waste, so that there may be as little irritating residue as possible. Milk and the albuminous foods are types of these, and still less irritating can they be made by partially digesting them before putting them into the stomach. Thus milk may be peptonized, and meat also. This, then, should be the fundamental principle of the treatment: To furnish a diet with a minimum of waste. Outside of the above treatment I believe that irrigation of the bowel should be practiced. This is done by means of a fountain syringe, or a funnel in connection with a tube, which is carried high up into the bowel, the patient being placed upon his back with a pillow under the hips. I find that a normal salt solution with about 30 to 40 grains of dermatol in solution to be the most desirable. This treatment must be carried on patiently for

weeks and even months, repeated daily, before a permanent cure can be affected, and even then at times the results are disappointing.

Cholera morbus is an acute gastro-intestinal catarrh, characterized by profuse vomiting, and painful cramps. The intensity of the symptoms, and their similarity to those of true cholera justify a suspicion that a specific organism is responsible for cholera nostras as well as for true cholera. No single bacillus has, however, been settled upon, although there has been found in the discharges with considerable constancy the bacillus known as the "comma" bacillus, which closely resembles the true cholera bacillus. The chief cause is due to some poison generated by the noxious substances. Such are indigestible and decomposed articles of food, unripe fruit, and, especially, mixtures of fish, salads and fruits. Attacks are more frequent in the hot weather of July and August, though cold and dampness are also regarded as predisposing causes. So are fatigue and a debilitated state of the system. Young adults and persons in the prime of life are more frequently victims than either the very young or old.

The victim of cholera morbus is commonly seized suddenly, often at night, with severe cramps, vomiting, and purging. The first vomitus is the food last ingested, but this is rapidly succeeded by bilious matter, and still later by almost pure water. The same may be said of the bowel discharges, which follow each other in rapid succession, in fact, become at times almost continuous. They ultimately present the physical characters of the rice-water discharges of true cholera. The pains are at first confined to the abdomen, the paroxysms succeeding each attack of vomiting; later they extend to the muscles elsewhere, especially those of the calves of the legs. Corresponding to the loss of water, is thirst, often intense. The patient is restless and anxious. Collapse may supervene, and the skin become cold, clammy and ashen-hued, the eyes deeply sunken, the pulse frequent and feeble. There is not often fever, though, like in cholera, the internal temperature is higher than that of the surface. The mind remains clear even in fatal cases, to the end, at which time it may become cloudy.

The prognosis is usually favorable, most cases recovering as a rule. One night is usually the duration of the malady. Fatal cases, however, occur, the very old and very young being most often victims. Prompt treatment is of the utmost importance, as it will usually cut short an attack which otherwise would last for from twenty-four to thirty-six hours, and be succeeded by a slow convalescence.

Treatment. — Opium is almost indispensable to the successful treatment of an attack of cholera morbus. The best method of introduction is in the form of morphin hypodermically, the more especially because everything given by the mouth is apt to be promptly ejected. For an adult less than ¼ of a grain of morphin is not to be thought of. On the other hand, such a dose often acts magically. It should be combined with diffuse counter-irritations over the abdomen by mustard, whilst the hot bath may be added if the symptoms do not yield. Internally dermatol in thirty grain doses dissolved in hot drinks every two hours. Flushing of the colon has also proved of benefit.

The following cases are cited from my case record, and are intended to show the efficacy of my mode of treatment:

Case I.—Mr. S. S., Brooklyn, N. Y. Called upon me June 6th, complaining of a severe watery diarrhea almost painless, but of a very foul odor. The trouble began two days previous to his visit, at first slight, becoming more and more severe. There was entire loss of appetite. All solid food was at once withdrawn and patient placed in bed. The bowels were flushed and powders of dermatol, grains twenty, were administered every three hours. This treatment, however, was preceded by half an ounce of castor oil.

Under this treatment my patient reported at my office on June 8th perfectly well, except for the weakness resulting from the diarrhea.

Case II.—Miss G. V., 11th St., City. On June 6th was suddenly seized with a severe attack of vomiting and dysentery accompanied with slight colicky pains in the abdomen. The bowel discharges consisted, at first, of fecal matter and the vomitus of lately ingested food. Six five gram capsules of castor oil were at once administered, followed by dermatol gr. xv every three hours. The case terminated favorably in twenty-four hours.

Case III.—Mrs. Rosa A., Mott St., City. June 5th, 1901, had been suffering from a profuse, odorless, and painless, watery diarrhea two days and two nights, movements averaging one every day and night. Great thirst and weakness. When called in, patient was having her first attack of vomiting. She was pregnant, about seven months, and greatly feared a miscarriage. A mild cathartic was at first given, which was followed by lavage of the colon with a normal salt solution, about two quarts being used. Internal medication consisted of

℞ Dermatol..... dr. iv
Carbo lig.....
Zingib. pulv. āā..... dr. I
Misc. et div. in cht. No. xii.
Sig.: One powder to be given in a little hot water every three hours.

This treatment proved efficient. After the first powder the stools grew less watery, and the intervals betwen them were prolonged. After two days the patient was able to go about, the only complaint being weakness.

Case IV.—Mr. J. R., 16th St., Jersey City. Called upon me on the 5th of July suffering with severe colicky cramps accompanied with retching and diarrhea. There was a slight elevation of temperature, foul breath and a heavily coated tongue. He had participated in a banquet the night previous and had over-eaten. This case was speedily remedied by giving an ounce of castor oil, which I administered to him in the office, and powders consisting of dermatol gr. xv repeated every three hours. The gentleman in question was restored to good health by the next day.

Case V.—Miss Jennie R., Hoboken, N. J. Was telephoned for on the 7th of July to attend the above party. On questioning, it was found that she had an attack of vomiting combined with severe purging; stools every fifteen or twenty minutes, foul smelling, semi-liquid in consistency, and accompanied with slight colicky pains. A coated tongue and fetid breath were prominent symptoms. The treatment in this case was simplicity itself. All food was withdrawn, and a milk diet only permitted. A cathartic was administered, followed by a washing of the colon with normal salt solution. Powders of dermatol, each 15 grains, were administered every three hours. In thirty-six hours my patient was again able to attend to her household duties.

Case VI.—Mrs. I. J., 63rd Street, City. (June 28th.) Had for the past six months been complaining of alternate attacks of diarrhea and constipation, each attack lasting from one to two weeks or more. One of the peculiarities of the case was that upon provocation, fright, or the approach of a thunder storm diarrhea at once began. The discharges were of a mucous character, and upon one occasion a complete mucus cast of the intestine came away with the stool. At times, great tenesmus and abdominal tenderness were present. The constipation, on the other hand, was of a most stubborn type. Pill aloin, strychnia, belladonna, and ipecac being the only remedy whose action proved satisfactory as a laxative. The diarrhea was treated as follows: Daily washing of the colon with normal salt solution. Internally doses of dermatol, grains 20, zinc sulfo-carbolate, grain ¼, given at three hour intervals. The patient has been under my treatment and carefully watched since the 28th day of June, and, although not yet perfectly cured, the

attacks are much less frequent, perhaps one every three weeks, and the duration likewise less, three to four days. Throughout the whole treatment the patient neither lost or gained weight, although her diet was partially restricted. I believe that another month of the treatment will affect a permanent cure.

Case VII.—Mrs. A. R., Monroe St., City. Was called on the night of June 2d, at about 11.30 P. M. Found party curled up in bed, knees drawn up on the abdomen, face of a grayish pallor, with an extremely anxious and agonized expression. She complained of "unbearable pains" in the abdomen and limbs. There was both purging and vomiting. Upon my arrival the stools had already taken on the traditional rice water appearance of cholera. A hypodermic of morphia sulfate, grain ½, was at once given. An infusion of cloves, cinnamon and allspice was made, to which doses of dermatol were added. 30 grains were given hourly, and were usually retained when given in the infusion. The purging and vomiting gradually grew less, and in twenty-four hours entirely subsided, thus terminating the case, which was one of cholera morbus, favorably.

Case VIII.—Mrs. Minnie F., 11th St., City. Summoned me to her home on September 3d. Her history was as follows: On the Friday previous she had partaken of some fried fish, which she claims "turned" her stomach. Saturday she suffered all day with cramps and a slight diarrhea of fecal character and very offensive odor. The pains subsided on the next day, although the diarrhea continued, when on the 3d of September it became so severe, being accompanied with vomiting, that I was sent for. My treatment consisted of, first, an ounce of castor oil, after which 20 grain powders of dermatol were administered at intervals of three hours. Forty-eight hours were sufficient to effect a cure.

Case IX.—Mr. Abraham D., Madison St., City. On August 12th was taken suddenly at night with severe cramps, vomiting and purging. Upon inquiring into the case it was found that the party had partaken of broiled lobster for supper. Although he felt slightly uncomfortable upon retiring, yet not sufficiently so to cause alarm. Later it became necessary to call me, when a purge of oil, followed with doses, at three hour intervals, of zinc sulfocarbolate, grain ¼, and 15 grains of dermatol was administered. The suffering was brought to a happy close by noon the next day.

Case X.—Mr. Patrick McC., William St., City. Salesman for a wholesale provision house, returned from his trip on July 23d, at about 9 o'clock. Being tired and exhausted ftom his journey he immediately retired. Was awakened at 1 o'clock that morning by most severe abdominal pains followed by copious vomiting and purging. After applying a number of household remedies, including "cholera drops," I was summoned at 4 o'clock in the morning, and found the gentleman almost in a state of collapse. The face was of an ashen hue, with sunken eyes. The expression was one of anxiety. Purging and vomiting were almost without interruption. The pulse and respiration were very rapid, the external temperature was sub-normal, the internal or rectal 102.4° F. A hypodermic of ½ grain of morphia sulf. was given followed by a washing of the colon with normal saline solution. Dermatol in 30 grain doses, administered in the decoction of cloves and cinnamon, was administered hot, hourly. The symptoms rapidly abated under the above treatment, so that by the 25th of July the patient was able to continue work.

Case XI.—Mrs. Frederick B., Dover St., City. Was called in to treat Mrs. B. on the morning of Sept. 2d, and found her suffering from severe colicky pains accompanied with diarrhea. The discharges were of a mucous character, and occurred about every 15 minutes. There was slight fever, 100° F., and a thickly coated tongue. Upon palpation I found the abdomen

slightly distended, and upon pressure could feel the gurgling of the intestinal gases. Precussion showed a full colon. All desire for food had been lost three or four days previous to my visit. The colon received an immediate and thorough washing, which at once relieved the colicky pains; after this a purge of castor oil was given, which, in its turn, was followed by 15 grain doses of dermatol every three hours. The condition continued to improve, and on the 8th day of September I dismissed my patient as cured.

Case XII.—Mr. James McD., of Carroll St., Brooklyn, whilst attending a wedding on the evening of August 12th was suddenly seized with an attack of vomiting of such violence as to compel him to drive home and call for medical attendance. By the time I reached my patient purging had set in. The discharges were fecal in character possessing an extremely vile odor. A purge of oil soon emptied the intestine of its irritating matter, whilst 15 grain doses of dermatol every two hours stopped the diarrhea. The patient was able to resume his duties on the 14th of August.

Case XIII.—Mr. Thomas J. M., Willet St. On the night of Sept. 6th was seized with a severe cramp and diarrhea. The discharge was of a frothy nature, and was accompanied with flatus. Carbonic acid gas was injected into the bowel by means of an apparatus made by the Sparklet Mfg. Co., of this City, followed by hourly doses of 10 grain powders of dermatol. The result was almost instantaneous, no traces of the trouble remaining by the following morning.

Case XIV.—Mr. Abraham F., Lewis St., City. Made my first visit on the night of August 26th, and found the following history. Patient had been treated by four physicians previous to my visit for "kidney trouble," "bowel trouble," and "bladder trouble." Upon my arrival I found him in great agony due to a retention of urine and a profuse diarrhea. I applied hot compresses to the pubic region and gave internal doses of sp. ether nitrosi and infusion of uva ursi equal parts, teaspoonful every 15 minutes with the desired results. The colon was washed on the 26th, 27th, 28th and 29th of August. 15 grain doses of dermatol were administered throughout the above mentioned period at three hour intervals. On the 2d of Sept. I discharged my patient as cured, the only after-effects being weakness due to the diarrhea. Since treatment I have had occasion to see Mr. F. and found him in excellent condition.

Case XV.—Miss Lena B., W. 13th St., City, called upon me at my office on July 29th, suffering from a slight diarrhea (four to five passages daily.) The trouble dated from a week previous, at which time the young lady had attended a strawberry festival, and no doubt had overeaten. A cathartic followed by dermatol powders, each 10 grains, three times a day, put things to right by the 5th of Sept.

82 Madison Street.

THE CURABILITY OF SYPHILIS.—Speaking of the curability of syphilis in the symposium upon that disease in the October number of the *Intern. Medical Magazine*, William S Gottheil, of New York, takes exception to the opinion of its practical incurability which is prevalent in certain quarters. Every day experience shows that the great majority of cases are cured in every practical sense, the occasional late relapses and accidents to the contrary, notwithstanding. He concludes:

1. Syphilis is a curable disease, and may even, with restrictions, be called a self-limited one.

2. Whilst cure in a given case cannot be affirmed with scientific accuracy, the chances of its being the fact after a certain time under proper treatment are so great that it may be properly claimed to have been effected.

3. Practically, a patient who has been properly treated throughout the active stages of the disease, and who has had no manifestations of its persistence for several years thereafter, may be regarded as cured, and may be told so.—Author's abstract in the *St. Louis Medical Review.*

*DIARRHEA—DIAGNOSIS AND TREATMENT.**

By GEORGE J. MONROE, M.D., Louisville, Ky.

When we first see a case of diarrhea we will find a gaseous distention of the bowels, and frequently of the stomach. The mucous lining is congested and the color heightened in acute diarrhea. This is the rule, and we seldom meet with a case of diarrhea which proves fatal but what we find this increased redness.

In diarrhea the mucous membrane of the intestines exudes an increased quantity of mucus. If indigestion be present the discharge is watery and foamy. Sometimes it will be a greenish-brown or black; then, again, we find this discharge nearly white. It does not have the usual fecal odor, but a disagreeable sour smell, or sickening sweetish odor: sometimes we cannot discover any smell at all. It is said that the mucous membrane sometimes has the color of bile, a sort of yellowish-white, probably caused by the bile passing over it and coloring it.

The intestinal glands are generally found to be enlarged. These may be seen as large as mustard seed and even larger. Peyer's patches, I think, are always enlarged in diarrhea. It is more observable in chronic diarrhea than in the acute form.

Ulceration may take place in diarrhea. This condition has been found port-mortem. I am of the opinion it does not often occur. But perforation of both stomach and bowels have taken place in diarrhea, and this would hardly occur were there no ulceration. Of course, if this does take place peritonitis will ensue.

The diagnosis of diarrhea can hardly be mistaken; still, it is difficult sometimes to determine what is the cause. If it comes on after unusual exposure or very soon after partaking of indigestible food, with pains in the bowels from the irritant action of the food, with boroborygmi and somewhat free discharges, it is generally called simple diarrhea.

We find about the following symptoms in diarrhea. Each action is accompanied with colic or preceded by colicky pains. There may be more or less nausea and perhaps vomiting. A dislike for food prevails; soon we notice the tongue becomes dry and parched. Sometimes before the attack takes place the patient will complain of being chilly, and occasionally an increase of temperature and slight fever. This temperature is apt to subside after a few free actions of the bowels. We have a good deal of pain, especially if much fermentation is going on. The distention of the bowels by the increased amount of gas is the cause of the pain. If a patient can expel this gas relief is almost immediate. Pain is produced by pressing upon the colon. The patient will complain of a tender feeling in moving or turning in bed. The patient will almost involuntarily bend forward, or, if in bed, draw his knees up towards the abdomen. This is done to relax the abdominal muscles and relieve the pressure upon the bowels. The number of the actions may greatly vary. There may be only three or four, or we may have twenty or thirty during twenty-four hours. The amount discharged also varies; sometimes it is very little and accompanied with tenesmus, or a pint or more may pass each time and yet hardly any pain. In cholera or cholera morbus there may a quart pass at a time. Sometimes the actions may be colored from the medicines used—iron and bismuth produce black stools, calomel greenish actions; a milk diet will give us chalky actions; the coffee ground stools indicate bleeding. With diarrhea there is nearly always thirst; in cholera the thirst is intense. The urine is generally decreased; instead of fifty ounces in twenty-four hours we may not have eight.

I give the above symptoms from my own case. The doctors at one time gave me up to die with diarrhea. At one time

* From the *Cincinnati Lancet-Clinic*, March 15, 1902.

it was not thought I would live an hour with cholera, but by having a strong constitution and extremely good nursing I weathered both diseases.

Convulsions occur in children; this is especially the case if there is undigested food in the stomach or intestines producing the diarrhea.

The old do not stand diarrhea very well; they soon become exhausted and die.

In any case of diarrhea, if it continues any length of time, the patient loses flesh and becomes weak. Sometimes delirium and a pinched, cadaverous look take place. The sphincter ani may lose its action, and the feces may run off involuntarily. When we find this condition the prognosis is bad.

Diarrhea may continue one or two days only, or it may last for weeks and months even. When I had my severe attack of diarrhea it continued nearly three weeks. Once in a while death will take place within twenty-four hours, though this is rare; generally it will take from six to twenty days to wear the patient out.

Treatment.—I think it would be hard to say just what the best treatment for diarrhea is. We have about as many different treatments as we have doctors. Nearly all, however, use some of the same medicines as sheet-anchors, as it were. Beyond these few well-known remedies I presume that nearly every known medicine has been used at one time or another in the treatment of diarrhea. A great many diarrheas will get well of themselves if we let them alone. Many diarrheas will get well in spite of the remedies used. Opium is probably the most reliable remedy in the treatment of diarrhea.

If I am satisfied that indigestible matter is lying in the stomach and causing the diarrhea, I give as much tepid water, with a teaspoonful of salt to a glass, as the patient can drink. This will produce free vomiting, and will empty the stomach. Most any emetic will do the same thing, but the salt and water is the simplest and fully as effectual. If we do not desire to give an emetic we may give a purge. The castor oil or sulphate of soda or magnesia are good. They do not, as a rule, afford as speedy relief as the emetic, but perhaps they are more effectual. We must give food easy of digestion in cases of diarrhea, or we can let the patient go without eating anything for twenty-four or thirty-six hours. At the expiration of this time many diarrhea will cease.

During the hot summer months, when we can hardly breathe in the city, if children suffering with diarrheas be moved to the country or take a ride on the lakes or rivers, especially the lakes, they usually will recover without the use of medicine. As children become easily chilled at night, producing frequently a diarrhea, therefore if they have a flannel night dress they avoid becoming chilled. I have found that several thicknesses of flannel over the abdomen of children will sometimes check a diarrhea. This is also of service in adults. Unripe and decayed fruit and vegetables should be prohibited. We should be guarded, any way in the summer, about eating too much. We also should avoid exposure during sudden changes—that is to say, if the temperature falls very much we should put on heavier clothing. We should dress by the thermometer. Our sleeping-rooms should be well ventilated; still, I do not believe we should sleep in a direct draught of air. The surface of the body must be kept clean and the pores of the skin open. This can be done by using baths. Tepid water, I believe, is best for children. Adults may use cold water provided they dry the surface well with a coarse towel. We ought to drink pure water; if we have any doubt about it being pure we had better boil it. If cold has been the cause of the diarrhea put the patient to bed and give him ten grains of Dover's powder and hot drinks; put hot jugs or hot bricks to his feet and place a mustard poultice over his abdomen. If we have a bath-tub in the honse, putting the patient in hot water for ten or fifteen minutes acts

like a charm, or even a sponge bath is good. All this has a tendency to equalize the circulation and thus we overcome congestion.

Ipecac sometimes acts marvelously well in diarrhea. If children raised upon the bottle would be nursed by some healthy woman when attacked by diarrhea, and flannel be placed over the abdomen, a little cracked ice fed them, and be sponged with bicarbonate of soda water two or three times a day, no internal medicine would be necessary.

Salol, carbolic acid, creosote, naphtha, salicylic acid, salicylate of soda, chlorine water, etc., etc., have all been used for diarrhea with more or less success. I have not had sufficient experience with these remedies to speak authoritatively in regard to them. I should think, from the nature of salol, that it would be good.

I have found some benefit from the use of injections into the rectum of starch and laudanum. Many medicines have been used for injections into the rectum for diarrhea; as a rule, they are of little use. We do get a soothing effect from flaxseed water, gum arabic mucilage and starch water.

There is one medicine which I will except when I say the majority of them are useless, and that is a liquid extract of hydrastis canadensis. Take a teaspoonful of Merrell's liquid hydrastis and two tablespoonfuls of water mixed and inject every four hours. I think we get more than the local effect of the hydrastis. Some of it evidently is absorbed and acts as an astringent or tonic to the mucous lining of the intestines, probably both.

Occasionally we may find it expedient to use alcoholic stimulants. Good brandy or old whisky may be given, well diluted, or we may mix it with milk or egg well beaten. Port wine may also be used in small quantities.

I use quinine, iron, and other tonics if I think they are indicated. No cast iron rule can be laid down in regard to the use of these remedies. Each physician must decide for himself. Subnitrate or subgallate of bismuth are excellent in the majority of cases of diarrhea. I give the subnitrate in large doses. We may use from five to thirty grains three or four times a day. Subnitrate of bismuth can be given very well stirred up with milk. A favorite prescription of mine is as follows:

℞ Subnitrate of bismuth ʒ ij to iv
Carbolic acid gtt. xxx
Camphorated tinct. opium .. ʒ j
Elixir lactopeptine ʒ iij

Sig.: Shake and take one teaspoonful every three to six hours, as required.

We will find it necessary to tone up our patient for some time after the discharges cease. Fellows' syrup of hypophosphites, maltine and iron, sometimes cod-liver oil are excellent. To regulate the action of the bowels, as well as a tonic, I give the sixtieth of a grain of strychnine three times a day.

To Cure Insomnia.—A very simple method of inducing sleep in cases of persistent insomnia, and one that has succeeded where many drugs have failed, is: Simply administer a moderate amount of liquid food before the patient goes to bed. This diverts the blood from the brain to the abdominal organs, and takes away the cerebral excitement that precludes sleep. —*N. Y. Medical Journal.*

Suggestions to Anesthetizers. — F. E. Simpson, Chicago, in an article in *Amer. Medicine*, March 1, 1902, recapitulates:

1. Give the patient your undivided attention.
2. Give the anesthetic slowly.
3. Keep the patient's lower jaw forward.
4. Give the anesthetic most cautiously (especially chloroform) when the stage of unconsciousness is at hand.
5. During deep anesthesia watch particularly the respiration, but also the pulse, eye and color.
6. The rolling of the eyeballs from side to side is the first and most easily observed indication of returning consciousness.

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Editorial.

IN OUR leading article in this issue, the author, who has contributed excellent reports heretofore, gives us a very exhaustive review of Diarrheal Affections in the Adult, and their treatment. It is a timely contribution, as the season of the year approaches when these affections are prominently in order.

* * *

THREE classes of diarrheas are described, and treatment recommended. Withdrawal of food and 10 to 15 grains dermatol will terminate a case of simple acute catarrhal enteritis in one or two days. To overcome chronic catarrhal enteritis is more difficult and takes longer. The fundamental principle of treatment is to furnish a diet with a minimum of waste; then irrigate the bowels with a normal salt solution, to which 30 to 40 grains of dermatol should be added. Cholera morbus is severe and dangerous, but with prompt treatment it can usually be overcome in a day. Opium is indispensable in the treatment; dermatol in 30 grain doses every two hours, and flushing of the colon, are recommended. The article is practical, valuable, and deserving of the space accorded it.

* * *

TO RE-ENFORCE the leading article and increase the interest of the reader in the subject, we also print a similar contribution by an author whose practical papers have occasionally appeared in this journal in recent years. Dr. MONROE reviews the methods of treatment and the drugs used generally. "We have about as many different treatments as we have doctors," he says; and then he summarizes the most popular methods and agents. A careful perusal and comparison of the two articles will no doubt prove interesting and valuable.

* * *

THE AVERAGE doctor is rarely consulted as to treating corns, and quite likely, too, he may feel above acting the part of chiropodist, or "corn doctor." Yet, a good authority in a leading medical journal, takes a contrary view, and our readers will find the abstract on "Corns" on another page worth reading. The heroic surgical treatment recommended will hardly prove popular; but the suggestion in the concluding paragraph, that physicians take up the treatment of corns, instead of leaving it to charletans, may be profitably followed, and with dignity.

* * *

UROTROPIN has become so well established in use, that more facts are hardly necessary. Still the abstract from the *Lancet* on another page contains a lot of useful, and not all well-known, information regarding this valuable drug.

* * *

THE READER will find reference among our Book Notices to a Symposium on Syphilis: it is worth reading. On two other pages we reprint author's abstracts on syphilis and chancre, taking from the book referred to.

* * *

IN CASTING over the available drugs for treating diarrheas, Salacetol deserves marked consideration. It is one of the safest and most efficient of intestinal antiseptics, and has been especially recommended for children. It should be given in castor oil, preferably in soft gelatine capsules.

Current Literature.

Treatment of Bright's Disease.—The *Medical News* (January 11, 1902) states that in the treatment of acute cases of nephritis W. H. White (*Practitioner*, Dec., 1901) recommends rest in bed as the most important factor. There is nothing better for keeping the skin at a uniform temperature than a bed, and in acute cases the relationship between the skin and kidneys is especially delicate. The room should be kept constantly at 65° F. and the patient not allowed out of bed or at least out of the room. The diet should always be milk, because it is a simple diet and does not contain anything to irritate the kidneys; it is particularly suitable for fevers, and, lastly, because it is a fluid diet and in acute Bright's it is important to wash out the kidney tubes. For this same purpose large quantities of water have been recommended, but excessive use of water has been found to materially increase the nitrogen excretion. Alcohol is bad for acute cases and so are strong diuretics, but acetate or citrate of potash may be given. Hydragogue cathartics are to be prescribed and frequent sweats produced, subsequent chilling being espe cially avoided. The best hypnotic is chloralamide in twenty- to thirty-grain doses. During convalescence a very careful return to a more general diet should be made and life in a mild climate should be insisted upon for a time if possible. In cases of chronic tubal nephritis the most striking is the extent of effusion of fluid into the connective tissues. This may be partly relieved by rest in bed and purgation. In obstinate cases acupuncture is considered safe if done with surgical precautions. Numerous punctures are made with a triangular needle and a sterile dressing applied and frequently changed. These cases are often kept too rigorously to milk. A feeling of depression and a soft feeble pulse usually mean that a little meat, bread and butter would be helpful. In chronic interstitial nephritis the great essential is to relieve the kidneys as much as possible and therefore the skin must be kept warm and never chilled. Flannels are necessary and a warm climate in winter. Some mineral water containing sulphate of magnesium acts best perhaps to keep the bowels in order. Many false ideas in regard to the diet of these cases have been inherited, the chief object being to diminish the risk of uremia and the percentage of albumin in the urine. The author has paid especial attention to these points in a large number of cases in Guy's Hospital and concludes that "there is no doubt that patients feel better and stronger on a full diet or a nitrogenous diet, such as chicken or fish, than on milk or farinaceous diet, and the liability to uremia is not increased by the more general diet." If the patient is loosing flesh, fats and carbohydrates are desirable. If the pulse tension is low and there is cardiac weakness, meat and beef tea are indicated, for the extractives are strong cardiac stimulants. If the pulse tension is high and the heart hypertrophied extractives are dangerous and may induce cerebral hemorrhage. Thus also a weak heart may do well with a little alcohol, but usually this drug is contraindicated. Albuminuria in itself is of but little harm to the patient. It has been estimated that even a fifth of the boys at a large public school pass albumin in their urine. In cases of nephritis treatment directed to the diminution of the albumin is unscientific. Furthermore, the author has been unable to discover that the administration of milk in any certain way led to the diminution of the urine. The chief guide to the diet should be the state of the pulse.

Corns.—Text-books, as a rule, deal very superficially with this subject, often dismissing it with a few words. The *Medical Journal*, January 25, 1902, abstracts an exhaustive article on the subject by E. Harding Freeland (*Edinburgh Medical Journal*, November, 1901) as follows:

If appropriate measures are adopted,

any corn may be speedily and permanently cured without risk of recurrence. The various methods of treatment are preventive, palliative, and curative.

Preventive treatment consists in securing freedom from pressure and friction for the parts most liable to corns. Well-fitting footgear is essential. These should be neither too tight nor too loose, but sit comfortably on the feet, be made of well-seasoned leather, saft and elastic, and be cut to a proper model. The length, width, and height should be sufficient to give full play to the toes, and not to cramp them unduly, either laterally, longitudinally, or vertically. Shoes should be made to measure, or better, to a last modelled from an actual cast of the foot. If there is a tendency to flat foot or any other slight deformity, this should be considered in constructing the foot covering, and appropriate means adopted for its ratification.

Palliative treatment includes all measures which stop short of the removal of the entire morbid growth, *i. e.* of the living and dead layers of the corn, together with the bursa, if it exists. Among the older remedies silver nitrate is probably the best; among the more modern, salicylic acid. These remedies cause desiccation and shrinkage of the horny layer of the growth, which is thus made to shell out from the bed in which it lies. Repeated applications are necessary, and the process is tedious. Unna's method is briefly as follows: A ring of glycerin jelly is painted round the circumference of the corn, so as to form a raised rampart. A piece of salicylic plaster mull is then cut to the size and shape of the central depression, and applied to the surface of the corn. This is then covered with a layer of glycerin jelly, and before it sets, a pad of cotton-wool is applied to the surface. This process is repeated as often as necessary, until the horny layer of the corn is cast off.

The point of a sharp thin-bladed knife, introduced at the groove which runs round the margin of the corn and made to penetrate toward its central axis, enables the corn to be easily separated from the parts beneath. This method is much in favor with chiropodists. When separation of the horny layer is thus brought about, the deep surface of the part removed usually presents an irregular, jagged appearance. This is often triumphantly shown to the patient as a proof that the corn has been extracted "by the roots." The true explanation, of course, is that the vertical columns of cells, previously described, have been irregularly fractured at the level of cleavage. As a matter of fact, a corn has no roots in the ordinarily accepted sense of the word; but if by root is meant the part from which it grows, that is left behind.

Curative treatment.—All palliative measures have the common defect that they leave the stratum mucosum—the living, growing layer of the corn—untouched and therefore liable to recur. This can be destroyed by the application of caustics to the depression left after the horny layer has been removed; but this method has objections, being always painful and uncertain. For the deeper layers of the stratum mucosum and papillae are very sensitive, and there is no means of gauging the thickness of the strata to be destroyed, nor whether the destruction is complete. Furthermore, the bursa, if existent, is left behind and may influence and give trouble subsequently, even if not at the time as the result of irritation by the caustic.

Any treatment, then, to be curative must remove the entire corn, together with the underlying bursa. The removal of the latter is important, for it is mainly in connection with it that complications are liable to arise. The author has practised the complete excision of corns in upward of sixty cases, and confidently recommends it as efficient.

Such an operation is naturally painful, but a local anesthetic gives uniformly satisfactory results.

Having taken every aseptic precaution, a spot is selected for the injection of the anesthetic. The skin is rendered insensitive by the application of ethyl chloride and by the use of some local anesthetic, which should be injected into the subcutaneous tissue beneath the corn. After a few minutes the superficial parts at the site of the incision are rendered insensitive by ethyl chloride. When anesthesia is complete, two hemi elliptical incisions meeting at their extremities are made through the skin around the circumference of the growth, care being taken that they penetrate well into the subcutaneous tissue. Seizing with a dissecting forceps the parts included in the incision, a wedge-shaped piece of tissue—including the corn, a layer of skin and subcutaneous tissue, and the bursa, if present—is dissected out. The oozing is pretty free, and it is sometimes necessary to twist a small vessel; but hemorrhage is never severe. The edges of the wound are brought together by one or two fine sutures; an antiseptic dressing is applied, and the wound left to heal—primary union in a few days being the rule. It might be thought, perhaps, that the formation of a scar on an exposed position, where it was liable to be subjected to pressure and friction, would lead to untoward results; but in practice such is not the case. In the case of corns dependent on deformity the appropriate treatment of the corns is the treatment of deformity which has called them into existence.

Even such every-day objects as common corns may be made a study of considerable interest, and if practitioners of medicine would take a more intelligent interest in these little tumors, which are as troublesome as they are common, an ever-increasing stream of sufferers would find their way to the surgeon, rather than, as at present, to the chiropodist; and the treatment of a disease, which legitimately belongs to the domain of surgery, would be lifted from the depths of charlatanism.

Urotropin as a Urinary Antisepeic.—The London *Lancet* of January, 19, 1901, contains an article by Cammidge, in which he details the results of a series of experiments with this drug. The results of his chemical experiments are summarized as follows: (1) Urotropin may alone, by prolonged heating, be made to yield formaldehyde, but this decomposition does not take place at body temperature. (2) An alkaline solution of urotropin may be similarly decomposed, but the body temperature is not sufficient to cause the change. (3) Dilute acids quickly decompose urotropin on boiling with the evolution of free formaldehyde, and this change occurs to a less degree at 37° C. (4) Acid salts—*e. g.*, of the urine—liberate formaldehyde from urotropin on boiling, but not at 37° C. The acid urine of a person taking thirty grains of urotropin a day does not contain free formaldehyde.

Although the exact chemical nature of the antiseptic body occurring in the urine has not been definitely settled, it seems clear, both from the bacteriological and chemical evidence, that it is not free formaldehyde. The readiness with which urotropin is decomposed by acids, and to a less extent by acid salts, together with the more marked inhibitory power over the growth of microorganism shown by the acid urine over simple urotropin solution or an alkaline urine, would suggest that it is not the urotropin itself which is the most important factor in producing this kolyseptic action. It seems probable that acid urines produce in the kidney a partial decomposition of the urotropin by which some body is liberated, or a fresh compound formed which has very marked inhibitory powers over the growth of bacteria. If this hypothesis is correct an important point in securing the full effect of urotropin in bacterial infections of the urine would be that the urine should be acid in reaction as it leaves the kidney. That this is so is borne out by clinical experience. One condition in which it is preeminently useful is typhoid cystitis.

Here the urine is generally acid, and the administration of urotropin quickly causes the bacilli to disappear. It has also been found useful in cystitis accompanying enlarged prostate and stricture of the urethra. Here, too, the urine is usually acid as it leaves the kidney, and only becomes alkaline from the ammoniacal decomposition which takes place in the bladder. In suppurative pyelitis and in cystitis caused by calculus in the kidney or bladder a similar condition of the urine obtains, and good effects follow treatment by urotropin. The administration of urotropin as a means of insuring antiseptic urine and an aseptic condition of the genito-urinary tract in operations on those regions has been highly recommended by Casper. Other conditions, such as bacteriuria and the nocturnal enuresis of children, the latter being said to be frequently caused by infection with the bacillus coli communis, would probably be found to be benefited by treatment with urotropin, since the urine is acid in reaction. Experience has shown that gonorrhea and tuberculous cystitis are not appreciably benefited, but the condition of the infection in these two diseases is different to those previously mentioned—the microorganisms are not in the urine but lie chiefly in the tissues.

As a urinary antiseptic urotropin appears to be much superior to those usually employed (*e. g.*, salol, ammonium benzoate, boric acid, guaiacol, naphthalin and resorcin), especially when the acidity of the urine is insured by suitable means. It is not, however, only as a curative agent in the ordinary forms of urinary infection that the advantages of the drug are so apparent, but in typhoid fever it may be employed from the third or fourth week onward to the advantage of both the patient and the community a large. Resent researches have shown that typhoid bacilli occur much more frequently in the urine than has been generally supposed, and that they may persist for very long periods after convalescence (five years). By the systematic use of urotropin in all cases the very real danger from this source which is so frequently overlooked may be entirely avoided.

Antiseptic Treatment of Typhoid Fever. —Every physician knows that the intestines can be affected by calomel, salol, thymol, sulpho-carbolate of zinc and sodium, bismuth, turpentine, beta-naphthol, and a large number of other drugs. But that these drugs should be able to affect intestines which are the seat of typhoid ulceration seems strangely incredible to those physicians who are wedded to the older doctrines of therapeutics. Every physician knows, or should know, that acute enterocolitis in infants and children can be benefitted if not entirely cured by small broken doses of calomel, especially in connection with some of the other reliable intestinal antiseptics, and that the same drugs are equally valuable in the enteritis of adults; but that these drugs should be employed in typhoid fever to influence the condition of the intestines and the intestinal contents is a view to be met with by the haughtiest skepticism. For my part, so long as I am engaged in the practice of medicine, I propose to be steadfast and loyal in the advocacy and use of this modern treatment. I shall do what little I can to popularize the antiseptic treatment of typhoid fever.

Starting from the positive observations that the intestinal antiseptics will cure enteritis in children and adults, it will be found that they also possess remarkable value in combating typhoid fever. Under their use the intestines can be practically sterilized and the contents rendered harmless for the organism. After the continuous employment of these antiseptics for several days absorption of poisonous substances from the bowels is greatly modified and in many instances wholly stopped. In this manner ptomain-intoxication is forestalled. The effect is shown by the disappearance of the symptoms of tox-

emia, and the stools lose their offensive character, and the formation of gases in the bowels cease.—Chas. F. Hope, M. D.—*Cleveland Medical Gazette*, June, 1901.

Vomiting after the administration of chloroform may frequently be prevented by replacing the inhaler with a linen cloth steeped in vinegar, allowing it to remain over the face for some time.—*Canada Med. Record.*

The Anodyne Treatment of Acute Peritonitis.—McCaffrey (The Etiology, Pathology and Treatment of Acute Peritonitis) observed that the most pronounced indication for treatment in peritonitis is that for the relief of pain. Blisters and counter-irritation, the older resorts, are practically useless. Hot water bags and poultices are far superior, but the relief they afford is only temporary. In some cases the ice bag is more grateful than hot applications. But whether hot or cold is employed, it should be relied upon only until other lines of treatment can be instituted. Papine should be given in teaspoonful doses every hour, and the doses repeated frequently enough to afford the desired results. Relief from pain, short of narcosis, should be sought, and this is generally easily obtained by proper dosage. Papine does not produce nausea, but rather prevents this symptom. In the event of the development of more or less prostration, a proper stimulant, such as strychnine or nitro-glycerine, should be judiciously employed.—*Med. News.—Cleveland Med. Gaz.*

The Unrecognized Chancre. — In the *International Med. Magazine* for October, William S. Gottheil calls attention to the frequent insignificance and fugacity of the syphilitic initial lesion, which leads to its non-recognition in quite a large proportion of cases. Ignorance of its occurrence, and not voluntary falsification, is the cause of the frequent absence of a syphilitic history in undoubtedly specific cases. The author calls attention to the following points of diagnosis:

1. The presence of a tumor as the original lesion. In its essence and invariably at the beginning, the chancre is a small, round cell accumulation in the skin or subcutaneous tissue. Ulceration may occur and usually does, or even phagadenism; but these are accidental, and epiphenomena, and almost invariably the specific induration is appreciable at the base of the lesion.

2. The tumor is indolent, painful and recalcitrant to treatment.

3 A peculiar and characteristic "stony" induration of the nearest lymphatic glands accompanies it, different from the general adenopathy that occurs later as a consequence of the systemic infection. Other lesions, as gummata, do not show it

4. Chancre runs its full course in a few weeks, whilst tuberculosis takes months, and carcinoma even years, for its development.

5. The well known signs of general luetic infection, osteocopic pain, cephalalgia, synovitis, general lymphadenitis, exanthem, etc., must be carefully and persistently searched for in every suspicious case. They may be so slight as to entirely escape careless examination.—Author's abstract in the *St. Louis Medical Review.*

Book Notices.

Manual of Childbed Nursing, with Notes on Infant Feeding. By Charles Jewett, M.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital. Fifth edition. 12mo. 96 pp. Published by E. B. Treat & Co., New York. 1902. (Price, 80 cents.)

We had occasion to commend this practical little volume long ago when the first editions appeared, and in its present revised and enlarged form, in its fifth edition, our opinion is strengthened that it is a highly valuable aid to professional nurses as well as to mothers, and that it must be very interesting to the general practitioner. The detailed descriptions of symptoms, conditions, necessary appli-

ances and preparations, means and methods—routine and for emergencies, are so comprehensive that every contingency seems provided for from conception to weaning of the infant, and beyond. The popularity of the book is fully justified.

Syphilis: A Symposium. Contributed to by seventeen authorities. 12mo. 125 pp. Published by E. B. Treat & Co., New York. 1902. (Price, $1.00)

This is a reprint in book form of a remarkable array of contributions on the subject of syphilis, which appeared originally in the *Intern. Medical Magazine*, the excellent monthly journal edited by Dr. Boardman Reed. There are thirteen separate papers, by as many distinguished specialists, including Dr. A. Robin (The Etiology of Syphilis), Professor Fournier, Paris (Clinical Characteristics of Syphilitic Chancre), Dr. W. S. Gottheil (The Unrecognized Chancre), Dr. L. D. Bulkley (Unrecognized Syphilis in General Practice), Dr. B. Reed (Syphilis of the stomach), Dr. F. Cabot, Jr. (Diagnosis and Management of Syphilis), Dr. Eugene Fuller (General Remarks on the Management of Syphilis), Dr. R. H. Greene (Treatment of Syphilis), and other contributions by Drs. Duhring, Lydston, Horwitz, Morton, Keyes, etc.

It goes without saying that in this little volume pretty nearly a full collection of the latest knowledge of this disease, with treatment in detail, is presented. It is a most important addition to any practitioner's library.

The Diagnosis of Surgical Diseases. By Dr. E. Albert, Late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized Translation from the Eighth Enlarged and Revised Edition, by Robert T. Frank, M.D., of New York. 8vo. 419 pp., with 53 illustrations. Published by D. Appleton & Co., New York. 1902.

Works on medical diagnosis are numerous and good; works on surgical diagnosis are few. The want is admirably filled by this volume. The authority of the author is admitted, and the translator has accomplished his task with exceptional fidelity and genius. The work represents practical clinical teaching; there are thirty-nine chapters, each a lecture on a disease or group, with presentation of cases, reported in detail up to the operating table, and sometimes to autopsy to confirm or correct diagnosis. The text is clear and concise, the cases are quoted graphically, the illustrations are numerous and illuminating. Lacking the space to go into details, we may speak only in these general terms; it is safe to say that money and time spent on this volume by the practitioner will be well invested.

The Sexual Instinct, its Use and Dangers as Affecting Heredity and Morals. By John Foster Scott, M.D., late Obstetrician to Columbia Hospital for Women, etc., Washington, D. C. Published by E. B. Treat & Co., 241 W. 23d St., New York. (Price, $2.00.)

The author, although a medical man and a specialist in women's diseases, has written and compiled this comprehensive treatise for non-professional readers. The language is plain and non-scientific, but refined to a degree which will make it instructive and attractive to the serious minded and disappointing to the prurient. The purpose is "to furnish the non-professional man with knowledge of matters pertaining to the sexual sphere" which he should know for the benefit of himself and those associated with him. It is a book worth reading and having; the physician can draw inspiration and knowledge from it, and he may often have occasion to recommend it to patients.

The scope of the work is clearly indicated by the titles to the successive chapters: The Sexual Instinct, Physiology of the Sexual Life, Consequences of Imprurity, Woman and Degrading her, Influences Inciting to Immorality, Prostitution, Its Regulation, Abortion, Gonorrhea, Gonorrhea in Women, Complications of Gonorrhea, Chancroid, Syphilis, Onanism and the Perversions.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, APRIL, 1902. No. 10.

Leading Articles.

*CHOREA.**

By JAMES H. TAYLOR, A.M., M.D., Indianapolis,

Professor of Diseases of Children and Clinical Medicine, Medical College of Indiana.

During the past few years I have been deeply impressed with the increased number of children afflicted with the various forms of neuroses. My clinics especially have been visited by this class. Many sought relief for "restlessness at night." Many were brought for "nervousness," with the claim that "the teacher had reprimanded them because they couldn't keep still in school."

Many complained of "batting their eyes," or "biting their fingernails;" while some manifested all the symptoms of St. Vitus' dance.

Upon close observation of these so-called "nervous" states, and by repeated examinations after the plan suggested by Landon Carter Gray, I have been convinced that many of these cases should be classed as incipient or imperfectly developed choreas.

Pediatrists have failed to give the subject of chorea that importance which it warrants among the diseases of early life. I certainly agree with Osler in his statement that "chorea is an acute disease of childhood, rarely of adults and of the aged."

This statement is confirmed by most writers, who claim that the disease is most frequently seen between the ages of five and fourteen years.

In the discussion of this subject, therefore, I shall confine my remarks to what is commonly recognized as St. Vitus' dance, or the chorea of Sydenham as it manifests itself in childhood and into the stage of puberty. If I mention other forms of this disease—such as chorea of pregnancy, violent chorea, chronic chorea, etc., etc.,—the reference is made simply to indicate the occurrence of these varieties, and to point out the means by which they may be modified or prevented by the early recognition and proper management of the cases met in childhood. Many theories have been advanced to account for this malady. It is comparatively rare before the fourth year. It is rarely seen among the colored race. It is more often seen in the unsanitary and crowded conditions of life, yet no social grade or locality is immune. Girls are affected more than twice as frequently as boys, and the former are prone to more recurrent attacks, it being not very rare for females to have the disease recur as often as ten or twelve times.

Hereditary influence certainly plays an important part as a predisposing factor. Openheim says, "that the age is especially in danger in which the motor inhibitory apparatus is not completely developed, in which mental excitement uninhibited is transformed into motor actions." According to Joffray, "Chorea is a cerebro-spinal neuresis of the period of growth."

Pianese, in 1891, claimed to have found in the cord and brain of a fatal case, a microbe which, injected into animals, produced symptoms of this disease. The findings of Pianese have not been confirmed.

* Read at the meeting of the Ohio State Pediatric Society, Cincinnati, Ohio. May 8th, 1901; reprinted from the *Cleveland Medical Gazette*, October, 1901.

Several observers have noted the close relationship which chorea bears to rheumatism, and it is an established fact that it occurs extraordinarily often after this disease in its acute articular form.

I think statistics will bear out the statement that chorea is associated with rheumatism in about one-half of all cases.

In the absence of *any one known cause*, I am inclined to hold the following position, viz.:

I. That a child may inherit a vitiated constitution, with a tendency to the development of various neuroses.

II. That rachitis and kindred food disorders and the various diseases of nutrition lay the foundation for the supervention of nervous disorders.

III. That the infection of rheumatism with its resultant anemia, is a potent factor in irritating the nerve centers and in the production of chorea.

IV. That in the exceptionally impressionable child the various peripheral excitants (adhered clitoris, phymosis, pinworms, etc., etc.) may precipitate the symptoms of chorea.

V. That chorea is a self-limited disease, ordinarily tending to spontaneous recovery in from six to ten weeks.

VI. That one attack does not render the patient immune—relapse or recurrence being the rule.

VII. That the prognosis of chorea in childhood is favorable, since the common termination of the disease is in complete recovery.

All are familiar with the symptomatology of this disorder.

Suffice it to say, however, that this form of chorea is characterized by aimless, irregular movements of any or all the voluntary muscles. It is a fibrillary movement—jerky, twitching in character, and totally unlike that seen in any other disease.

The child becomes restless, awkward and careless. These symptoms manifest themselves in variable degree—from movements so mild as not to attract the attention of the mother, to those of such intensity as to almost endanger life.

Church and Peterson, in their treatise, mention, among several varieties, "the grave form," which "manifests itself in an intense exacerbation of the common type," and the "gestational form," with its dire effects both on mother and foetus. These forms should be borne in mind when we have the management of girls nearing the age of puberty—that physiological period with its predisposing hysterical tendencies—and those unfortunate primipara (mostly unmarried) who have been victims of chorea in earlier life.

Those who have witnessed these misguided girls in that condition of mental unrest with its fluctuating periods of apathy and hallucinatory delirium will appreciate the above incidental reference to this subject.

In the examination of patients in whom chorea is suspected, the diagnosis is ordinarily obtained with comparative ease. One should bear in mind the "involuntary fibrillary movements consisting either of a jerky twitch, that begins quickly and ends quickly, or of a wavy, undulating movement." I have made it a rule to strip the patient in order to bring into play the muscles of both trunk and extremeties. Then, as suggested by Gray, I take the patient's hands in my own, with its palm resting lightly on mine, and sooner or later I experience the characteristic twitch. If the child is re-examined in this manner from time to time and the transient twitchings become more marked, this method forms a link which, added to those of personal and family history, exciting factors, etc., complete the chain of evidence which establishes the choreic nature of the disease.

In some cases, such as are sometimes termed "partial chorea," and to which I have applied the term imperfectly developed chorea, in my list of cases previously mentioned, it requires the closest scrutiny in differentiation. Thus, where the motion is limited to the muscles of the eye or

lips alone or larynx alone, etc., local or organic disease might be inferred. I have a patient now under my observation (eight years old and undoubtedly choreic), with an apparent local trouble in the occipito frontalis muscle.

The time allotted will not warrant further elucidation on the etiology, symptomatology, and diagnosis, and I shall, therefore, arbitrarily omit reference to complications, sequelae, etc., and consider what seems to me of paramount importance relative to this subject—the treatment of chorea.

The prevention of any disease is of primary importance in the line of every physician's duty. If chorea may be classed among the neuroses, infectious or otherwise, it is, in a measure, a preventable ailment. When the child is yet unborn, much may be done in its mother's gestation to lessen the frequent storms of despondency and discontentment; to diminish the many periods of sorrow and anguish; to guard against oft-repeated fits of anger and hysteria—all of which share in their transmitting influence upon the offspring. Let one in such a journey, which is hard enough at best, be guided by the star of encouragement along a pathway of cheerfulness and sunshine, in an atmosphere of peace and harmony, and the result will bring its reward.

A more careful inspection of the improper methods of feeding, bad hygienic conditions and neglect so common in early infancy, and the correction thereof would naturally mitigate the large number of cases of indigestion, intestinal disorders and malnutrition, which are most potent predisposing factors in the production of functional nervous diseases in later childhood.

In the general hygiene of the nervous system, we should note the fact that the brain grows more during the first two years than in all the rest of life. Great injury may be done during this sensitive developmental period. Holt forcibly points out the danger in his statement that "playing with young children, stimulating to laughter and exciting them by sights, sounds or movements until they shriek with apparent delight, may be a source of amusement to fond parents, but it is almost invariably an injury to the child." Parents should be apprised of this and other similar errors and their deleterious effects. If they were taught that the normal healthy development of the nervous centers demands quiet, peaceful surroundings, free from noise, confusion or excitement, much would be accomplished toward the prevention of nervous disorders. Exceedingly bright children are more frequently met among choreic patients. It is a deplorable practice to encourage such children, at the age of three or four years, to memorize a long list of verses, or several pieces, and recite them over and over for the edification of friends. This over-stimulation of the brain and nervous system results in a more rapid waste metabolism, with a corresponding lack of constructive metabolism of nerve cell growth, which terminates in the child's becoming the victim of some nervous disease—oftimes chorea.

This is also applicable to older children. Many instances might be cited illustrating the truth of this statement.

There is in my own city, at this time, a precocious youth, who is an example. I refer to "Jack," the thirteen-year-old boy preacher. The auditorium will not hold the crowds of people who throng to listen to the marvelous sayings of this so-called prodigy. The more sermons this premature mind grinds out in a day, the greater is the applause of his listeners. This fact is a burning shame; for it is only a question of time when the main-spring of that intricate machinery of the human mind, under such tension, *must snap*; when the balance-wheel of thought will be injured beyond repair, and the boy will be a physical wreck.

The early corrections of errors of refraction, the early detection and removal of any peripheral excitant that would predis-

pose to disease of the nervous system, the removal of the anaemic and debilitated from unsanitary conditions to better hygienic surroundings,—*all* are prophylactic measures full of promise for good. The prime element in prophylaxis lies in the province of the physician. Where he is consulted about some apparently slight ailment, such as biting of the lips, protrusion of the tongue, or the distortion of a facial muscle, he should not remark, with the customary indifference, "O, that does not amount to anything." This is the time for the doctor to treat the matter seriously. This is the time to check the progress of those latent conditions, which undermine the health and wreck the nervous system. This is the time to take the child out of school. This is the time to make the diagnosis, and outline a plan to stop the development of chorea.

Shall the physician wait till the laiety make the diagnosis? This would reflect discredit upon any medical man who had been permitted to see a case in its incipiency. Anyone is deserving of censure who neglects to investigate, to the minutest detail, the most *trivial* symptoms in a child, if, in the judgment of the parents, that symptom is of such import as to warrant a physician's advice.

In the treatment of chorea, no specific has, as yet, been accepted. Arsenic seems to have been most generally used, and, while it has been empirically given, its use has received the commendation and support of many authors and practitioners.

No two cases can be managed exactly alike in every detail.

In incipient cases I have given Fowler's solution where the patients would show marked improvement even before the cause of the symptoms could be learned. In some fully developed cases, I have noted not only negative results, but deleterious effects.

In the practice of one of my associates I have witnessed a cure from the hypodermic use of Fowler's solution in the sternomastoid muscle (in case of hemichorea), where all other remedies had failed.

Antipyrine has been strongly advocated by some. I do not hesitate to affirm, that while drugs are considered of secondary importance in the treatment of chorea, better results would often be obtained, were the associate elements of the disease considered.

For instance, if rheumatism is present, the salicylates are serviceable; if there is a malarial taint, arsenic or quinia may be indicated. Antipyrine has acted so kindly in allaying the nervous element in pertusis that I think it deserves more consideration in chorea.

Rest is indicated in every case. The large per cent. of cases with functional and organic heart complications necessitates rest. The prevention of cardiac lesion should play an important part in the management of every case.

Many patients are anaemic and therefore demand tonics. Any of the digestible forms of iron will meet this demand.

A plain substantial diet should be given in all cases. As the nervous system suffers material impairment—the food should consist of an ample amount of cream and butter, or cod liver oil.

These supply the fat, which is important, not only in its possessing the property of saving nitrogenous waste, but it is required for the growth of nerve cells and fibres.

Sound sleep and plenty of it *must* be obtained. The strength of the child *must* be conserved. The motor agitation is intensified by the average emotional and other disturbances of the waking hours, and the sensitive, rapidly growing nervous system demands, for its delicate machinery, at least ten hours rest every night—even if sleep must be induced by artificial means. A warm bath and a little chloral at bedtime will often accomplish this. A daily nap of two or three hours should be encouraged. The child should abandon its accustomed plays.

Older associates should constitute his companions till the disease is on the decline.

In convalescence, under a judicious plan of re-education, the patient may resume the more harmless forms of amusement with his playmates.

In the choreic state there is a general enfeeblement of the muscular system; the muscular wall of the intestine participates in this weakness, and chronic atonic constipation may ensue.

Among the several evils resulting from constipation is the absorption of toxins, which, as exciting factors, may aggravate the already disturbed nerve centers. The bowels should, therefore, be kept open.

The want of time precludes further discussion. Almost every case of chorea is a law unto itself, yet all cases should be managed with a view to secure rest, to support nutrition, to preserve the mental equilibrium, and to the re-education of the motor centers.

Let the pediatrists of the twentieth century assume the responsibility of investigating the cause of chorea. Let them, by a closer observation of the incipient cases, diminish the frequency, and mitigate the terrors of this disease.

*FEEDING IN GASTRIC ULCER.**

In a striking, if somewhat popular, and *ad captandum* clinical lecture, recently delivered at St. Bartholomew's Hospital, Sir Lauder Brunton described some of the reasons by which one is influenced in laying down a course of dietetic treatment for cases of gastric ulcer.

"Supposing," he said, "you have an ulcer on the back of your hand, how are you going to treat it? You know perfectly well you would not like it sandpapered three or four times a day, nor would you like to have it dressed with vinegar instead of with water. You would not like to have a poultice made of pickles, pepper and cayenne applied to it. You must treat a gastric ulcer in very much the same way; you must avoid irritating the ulcer by anything that will do harm to it, either mechanically or chemically."

As an example of sandpapering a gastric ulcer, he instances the use of strawberry jam as a food, the achænia or seeds of the strawberry being absolutely indigestible, very hard, and pointed at one end. The kernels or ovules of seeds, such as almonds, nuts, and the like are also very hard so that anything in the shape of nuts or seeds or stones in fruits is to be avoided.

Then bones, as the bones of fish or broken splinters of bone such as are met with sometimes in curries and game pies, are very dangerous. Things also which act as a scrubbing brush are to be avoided, such as the cellulose found in the stalk of a cabbage, or in the skins of fruit, do a great deal of harm, and as in raisins and currants one cannot remove the stones and cannot remove the skins one must avoid the whole fruit. A patient with an ulcer of the intestine, as in typhoid fever, may be killed by a currant as surely as by a rifle bullet. Strings, which may do harm mechanically, are also met with in meat, and the greater digestibility of some kinds of meat depends on the lesser size and strength of the fibres it contains; those of beef being the coarsest and of chicken the finest.

Fibres and lumps in food may do harm chemically as well as mechanically. Anything which tends to plug the orifice of the pylorus tends to keep the food longer in the stomach, and the longer it stays there the more acid does it become, so that in cases of gastric ulcer, where the acidity is generally over the normal to begin with, there is a double reason for avoiding fibrous and lumpy food.

In gastric ulcer the food *par excellence* is milk, but if milk is drank "a lot at once," it may coagulate and form a fibrous meat which may do great harm, so that one must give milk in small quantities,

* From the *British Medical Journal*, March 1, 1902.—*The Hospital*, March 8, 1902.

and combine it with lime water, or barley water, or soda water, or must peptonise it, by either of which the formation of hard indigestible curd may be prevented.

Hence, we begin by giving, in addition to nutrient enemata, only a tablespoonful of lime water every two hours, gradually increasing the quantity as we find the patient is able to bear it without causing pain. As soon as it becomes desirable to give more solid food great care is to be taken that it is thoroughly masticated or mechanically broken up before it is swallowed, as it is only in this way that its digestion can be insured.

After milk has been employed for some days, the next stage is that of custards, which are very readily digestible, and so smooth that they can produce no mechanical injurious effect. Then from custards one may proceed to pounded fish, and from that to pounded meat, which if it is thoroughly broken up and mixed with fluid is really like milk. "You may make a very nice liquid food," says Sir Lauder Brunton, "of pounded chicken, which is very useful not only in cases of gastric ulcer, but in diseases of all kinds when patients will not take meat. You simply take the breast of the chicken, cut into thin slices, then mince it up. put it into a mortar, grind it with a little chicken broth or else a little weak beef tea, until it is like paste. Then mix it up with a little more chicken broth or beef tea until it is about the consistence of milk." Many a patient will drink this who will not swallow other meat preparations. Thus in treating gastric ulcer, first there is rest in bed and rectal feeding for a few days, then careful feeding by the mouth while the rectal feeding is coutinued, the mouth feeding consisting at first of a tablespoonful of milk and one of lime water every two hours, gradually diminishing the lime water and increasing the milk. Then custards, then pounded meat, then chocolate (a very grateful change), and lastly the various forms of farinaceous foods, taking great care that in whatever form they are given they are so prepared as to be incapable of forming masses into which the pancreatic juice cannot gain access.

*A GENERAL CONSIDERATION OF THE X-RAY IN MEDICINE, SURGERY AND JURISPRUDENCE.**

By G. H. Stover, M.D., Denver, Colo.

The X-ray, as I understand it, is a form of radiant energy in many ways similar to light; its waves are transmitted through a number of substances impenetrable to ordinary light.

It does not posssess the power of exciting visual sensation in the retina, thus making it necessary for us to employ mediate devices in order to render its effects visible to us.

The impulses emanate from a point and proceed divergently from their source. This is the reason why the X-ray must be very carefully used and its findings carefully translated or it will give us apparently false information.

There are two methods of using the X-ray; the first requires a fluoroscope. This is a light-proof box open at one end, this end being shaped so as to fit closely to the observer's face when he applies the instrument to his eyes. At the other end of the fluoroscope is a chemical screen; the screen is coated with a substance which fluoresces or glows with light when the X-ray falls upon it, the chemical side of the screen being inside the fluoroscope. The object to be examined is placed in front of the Crooke's tube so that the rays will pass through it; the fluoroscope is applied on the other side of the object; the relative positions of tube, object and plate are of importance, on account of the divergence of the rays. The object should be as far as possible from the tube as is consistent with a good light in order that the image shall not be distorted owing to the great divergence of the rays near the tube. The fluoroscope should be applied directly to the object as closely as possible to it,

* Read before the Colorado State Medical Society, June 20, 1901.—Reported from *The Colorado Medical Journal*, January, 1902.

and the screen of the fluoroscope should be perpendicular to the rays passing through the object; we are thus not looking directly at the object under examination as is so often supposed, but we see only the shadow of the object. The fluoroscope is a very handy instrument; by its use we make the examination immediately, without waiting for further manipulation, as is necessary when skiagrams are taken; we are able to view the object from all sides, and in many instances in clinical work can show the patient himself what we have found. On the other hand, the fluoroscope does not give as clear detail of many things as does the skiagraph; it is not a permanent record; yet it is a great time saver and is amply sufficient for many of the examinations for which the X-ray is needed.

The skiagram is a permanent record. To obtain this, the object to be examined is placed as close as possible to a sensitive plate such as photographers use, the plate being in a light-proof container of some kind which will not obstruct the passage of the X-ray, and with the film side nearest the object; the Crooke's tube is placed on the other side of the object and as far from it as consistent with a good light; the time of exposure varies for different objects, depending on their thickness, density, the character of X-ray which is being given off by the tube, and the nature of the information that is desired. Two classes of tubes are used, the soft and the hard; a soft tube is one that gives on the plate the shadow of the soft parts; the hard tube gives on the plate only the denser parts of the object. As in the use of the fluoroscope, the relative positions of the tube, object and plate are of the greatest importance in getting a shadow that shall be as free as possible from distortion; the plate should be perpendicular to the rays passing through the part of the object under examination. After the plate has been exposed it is developed in much the same manner as the ordinary photographic negative is obtained; a fast plate does not give a better result than a slow one. Prints may be made from these negatives as in regular photography; the negative is better than the print from it, for the reason that the details are clearer.

In studying these negatives, place them on the sash in the middle of a window in such a way that they will have the clear sky or pure white cloud as a background, with the film side of the plate away from you. If, for instance, the object examined was a right hand, taken with the palm next to the plate, you see, when studying the plate, the right hand as if you were looking at it from the palmar side. A print from this plate will reverse the hand; that is, the print will apparently show a left hand from the palmar aspect. As the skiagram is merely the record of a shadow, you may rectify this reversal by imagining that you are looking at the object from the side opposite to that which was nearest to the plate when the exposure was made.

The X-ray is of the greatest use in surgery and dentistry in the detection of fractures and dislocations, and the finding of foreign bodies; there are some sources of error and some precautions to be taken that should be mentioned here. In a recent fracture of a long bone, if the fragments are in true opposition, the X-ray will not show a fracture line; the early callous is transparent to the X-ray and will not be shown; a little later the callous contains sufficient bony material to be revealed by the X-ray; effused blood is very opaque to the X-ray and will often obscure the bony parts in its vicinity.

Foreign bodies are usually well shown, except sometimes in the case of bullets imbedded in dense tissues, or when considerable blood has been effused. In these instances the bullet can sometimes not be seen. Small slivers of wood cannot be shown by the X-ray unless they are from wood that has been saturated by a paint containing lead; pieces of glass can be seen in tissues that are not too

thick; glass, it may as well be said here, is more opaque to the X-ray than aluminum; needles are usually easily shown; lost Murphy buttons are located, as are also many of the objects swallowed by children. I have had two cases in which I have been able to see an open safety-pin in the upper part of the esophagus; in one the pin was quite large and was removed by Dr. Craig by esophagotomy, with a succeeding complete recovery; in the other case the pin was a smaller one, and the surgeon in charge of the case was not able to see it, though it was plain to me; he declined to operate, and twenty-seven days later the mother of the child brought to me the safety-pin, which had made the trip through the alimentary canal. It was a lucky thing that the pin did not cause serious trouble on the way. I will say here that the trained eye can see more, much more, in the fluoroscope or on the negative than one which is not trained to the work, and the X-ray expert's opinion should receive just as much weight as is given to the opinion of experts in other lines.

In searching for foreign bodies, it is not enough, as a rule, to see that they are present; they must be located, and for this purpose views must be taken from two or more points. A handy method with the fluoroscope is as follows: After getting the shadow of the foreign body on the screen, place on each side of the part in which it is situated, a metalic object, in such a way that the two metalic markers and the foreign body shall be in line; repeat this process from another point of view; then, by extending an imaginary line through each set of markers, it may be certain that the foreign body is at the point of intersection of these two lines.

Fractures of the skull are practically impossible of detection by means of the X-ray, because the light has to pass through two thicknesses of bone, one of them removed some distance from the plate, and each layer of the bone of very variable thickness at different points, making a very complicated set of lights and shadows on the plate.

In the thorax we are able to see consolidations, excavations, spots of anthracosis, aortic aneurisms, cancerous growths, and observe the movement, pulsation, size and position of the heart, and to measure the excursion of the diaphragm during inspiration and expiration. The liver is quite well shown as a rule, and if the stomach contains a quantity of food, or of some substsnce opaque to the rays, we may outline that organ. A mixture of mucilage and bismuth, swallowed just as the examination is begun, is of value in rendering the esophagus and stomach visible. I am sorry to say that the X-ray is of no assitance in determining the presence or absence of tapeworm. I have had a number of requests for examination from parties who desired to learn if they were harboring such an unwelcome guest. Gall-stones are so transparent to the X-ray that they are practically never revealed by its use.

It is coming to be held by many that the X ray is of great value in finding stones in the kidney. My experience, referred to in another paper, has not been sufficient for me to express an opinion of this. I think it will often be a difficult matter; it should not be very difficult to find a stone in the bladder in many of the cases.

Floating cartilages in the knee-joint cannot, in most cases, be shown by the X-ray.

I think that the value of the X-ray in finding tumors of the brain is very problematical.

There are now recorded many cures of lupus by the use of the X-ray. Personally, I have treated only one case, that one did not continue the treatment to a cure, though I feel fairly confident that a cure would have resulted in time.

Epithelioma of the skin is being treated with the X-ray, but I believe the value of the treatment is not yet proven.

The medico-legal status of the X-ray is a very important matter, as skiagrams are more and more being introduced as evidence in the courts. I very strongly take this position: A jury has no right at all to examine a skiagram. The proper sphere of the skiagram is in the hands of the experts who are to testify. It should be used by them simply as a means of information, in connection with the other means of examination used by them, and should no more be given into the hands of the jurymen than that they should be permitted to make use of the measuring tape, the stethoscope or the urino-meter.

The skiagram never gives an absolutely accurate image of conditions as they actually exist. The skiagram must be carefully studied, and what it shows translated in connection with the findings of the other and ordinary methods of examination. Its limitations should be remembered, and its sources of inaccuracy carefully borne in mind.

Many of my hearers have practiced for a number of years, and in that time I suppose have treated numerous fractures of long bones, and have obtained many "perfect results." It would surprise you, gentlemen, if I could show you these "perfect results" with the fluoroscope. You would find that in very many of them there was not absolute opposition of the fragments; you would see a great deal of overlapping or bending, or the lump of callous that the picture shows. The skiagram is misleading to a jury, and it should not be shown to a jury at all.

Gentlemen, discourage the introduction of skiagrams in evidence at every opportunity you have. Do not allow a patient of yours who is suing an individual or corporation for damages to show a skiagram of the injured part to a jury. It is not proper evidence for a jury to see, and they cannot make a proper use of it. Some day, if practice is kept up and becomes common, and you allow juries to compare your testimony with what they think they see in skiagrams, it is going to prove a boomerang to you, and for many years after such a practice becomes established, no man will dare to handle a fracture without the fear that he is pretty apt to be favored with a suit for damages from some one who thinks that his broken bone was not restored to its original design, leaving no trace to show that there had ever been an injury.

*CARBOLIC ACID: ITS USE AND ABUSE.**

By George W. Sargent, M.D., Seneca Castle, New York.

Phenol, phenyl hydrate, phenic or carbolic acid is one of our most interesting and useful remedies. There is none more capable of harm, or more commonly used accidentally, and with evil or suicidal intent. It is employed largely and carelessly by the laity, and held in somewhat superstitious regard by many, a few drops of the acid allaying all fears of infection. Every few days we hear of some accident or fatal result from it. It was formerly used as a remedy internally, and by injection. It is now employed for the purpose of a preservative in preparations of antitoxin. Considering the large doses of antitoxin now given, an unsafe amount of the acid is liable to be injected with very deleterious influence on the heart and kidneys.

In the *Medical Record* of March 11, '99, Dr. Seneca D. Powell, of New York, asserts that alcohol is a perfect antidote to carbolic acid; moreover, that in connection with alcohol the acid is capable of greater service than is generally supposed. Powell has demonstrated that the pure, or 95 per cent. acid, may be rubbed on the skin or held in the mouth with impunity until the skin or mucous membrane turns white if the parts are then rinsed with 95 per cent. alcohol. I am able to testify to the truth of this from experience, having unintentionally performed the experiment,

* Reprinted from the *Buffalo Medical Journal.*

already alluded to, on my own hands. I had on a table before me two two-ounce bottles labled and filled respectively with carbolic acid and alcohol. Wishing to rinse my hands with alcohol, I picked up one of the bottles, poured a liberal quantity into one palm and rubbed it over both hands as in the act of washing. I was not surprised a little to find by the greasy sensation and silvery color to which my hands were turning that I had used the carbolic acid. However, a thorough rinsing in alcohol from the other bottle, to my satisfaction, promptly restored the normal color and feeling, with the exception of a slight sensation of dryness and roughness for the rest of the day.

Since Powell's paper, this antagonism between carbolic acid and alcohol has been made considerable use of in minor surgery and in treating carbolic acid poisoning. In many instances the pathogenic germ which the physician or surgeon has to deal with is beyond control with the agents at hand in the strengths ordinarily or safely used, but carbolic acid may be employed with alcohol in full strength; and by its means a suppurative or an ulcerative process can be checked and one of healthy granulation produced quickly with rapid healing.

According to the *Therapeutic Gazette* the pure acid is relatively less toxic to the normal tissues than the diluted acid, its penetrability is slight during a brief application, and its bactericidal action surpasses that of corrosive sublimate, from the fact that the action of carbolic acid is not materially affected by the presence of acids, alkalies, salt or albumen, yet in some cases may thereby be considerably increased. (Anthrax spores are destroyed by a 2 per cent. solution of carbolic acid alone in 30 days, but by a 2 per cent. carbolic with 1 per cent hydrochloric acid in seven days. Staphylococcus pyogenes aureus by 1 per cent. carbolic with 20 per cent. common salt in one minute.)

Carbolic is serviceable in mammary, tubercular and other abscesses. Here the cavity is first evacuated, then cleansed by irrigation, swabbing or curetting, and swabbed out with pure carbolic acid, then with alcohol, and finally again irrigated. In this way a normal granulating service may be secured in a surprisingly short time. A. M. Phelps, of New York, uses the pure acid in this way in tuberculous joints. Empyema, cystitis, hydrocele, and the like, are amenable to carbolic acid, using a solution of ½ drachm to one drachm to the ounce of water followed with 25 to 35 per cent. alcohol.

In cases of hydrocele a quantity of the pure acid is injected and allowed to remain without further interference. Erysipelas is successfully treated by painting the affected surface with 95 per cent. acid, and when the skin turns white, with alcohol. One of our members has told me of treating a case thus, but found it very painful, though effective. Others who have reported cases make no mention of pain. A brief application of the acid to the normal skin or to an ulcer or other raw surface is not painful.

Ivy poison is rapidly cured by a 2 per cent. lotion, and the lymphangitis that is apt to occur in connection with infected wounds is usually readily controlled by it; also the redness, pain, induration, and other signs of inflammation in caked breast or mastitis. In cellulitis of the hand or foot, Powell injects the pure acid and then alcohol, cocaine being first used to avert the pain of the needle. The pure acid is used in mastoid abscesses, in septic conditions of the endometrium, ischiorectal abscesses, furuncles, and other conditions. Some persons dread an operation and will submit to any treatment, though much slower, rather than undergo cutting. With a specially constructed syringe that will follow the sinuous tracts of fistula-in-ano it is possible to accomplish a cure without a knife.

The danger of poisoning should always be borne in mind. The long continued application of phenol might be accompanied with absorption and poisoning

through the skin. I may mention the case of an infant seven days old dying from a few drops on the fingers of the nurse. The proper use of the acid does not contemplate usually protracted or continuous applications. Ignorant persons sometimes wrap the fingers or toes in the acid in full strength, or in very strong mixtures, with subsequent gangrene. There seems to be an opinion that gangrene is apt to occur when the acid is used on the extremities even in weak solution, but I think this must be a very rare result. An instance reported where two brothers, both young men, never ill previously, had gangrene of the fingers following the use of a solution containing only 1.7 per cent. carbolic acid was regarded as due to idiosyncrasy. There is no danger so far as I know from the pure acid followed with alcohol.

The treatment of poisoning cases has been very unsatisfactory. Woodman and Tidy cite twenty-one instances during a period of five years with only one recovery. The doses taken were usually one to two ounces. The smallest fatal dose I have found recorded is ½ ounce. The effect of a poisonous dose is sometimes extremely rapid, but generally several hours elapse before death. The antidotes printed on the manufacturers' labels and in the books have not proven efficient. The alkalies in excess have some power, oils retard the absorption of the acid and heart stimulants, as atropine, strychnine and caffeine are useful.

In one instance 2½ grains of caffeine dissolved in water with the aid of sodium salicylate given hypodermically and repeated in an hour restored a man from a state of coma.

Vinegar is claimed to be efficacious.

Bleeding, one pound of blood being drawn, was once successful.

Emetics are of no service, because the stomach is benumbed or paralysed by the acid.

During the past two years, since the antagonism between phenol and alcohol has been made prominent, several cases of recovery where the patients were apparently moribund have been reported after the exhibition of alcohol. In one case the stomach was washed out with pure alcohol. A 25 per cent. solution will counteract the acid on the skin and it is probable that whiskey or any strong alcohol would answer for internal use.

How this antidotal property of alcohol is exerted is not certainly known. There may be a true antagonism between the two substances, or alcohol may act simply as a solvent, though its action seems to go farther than that. However that may be, we have the fact that alcohol will prevent and remove the caustic and poisonous effects of the acid. The primary step in poisoning cases is to wash the stomach out with alcohol, then whiskey may be given hypodermically, with the idea of neutralizing the acid in the blood. Other heart stimulants may be required. As the acid is quite rapidly taken up into the blood it has been suggested that no method of treatment is complete without bleeding. But this has not been done to any great extent, or been necessary, to my knowledge.

Syphilis.—

℞ Potassii iodidi ℥ss.
Ferri et ammonii citratis..... ℈i.
Tinct. nucis vomicæ.... ℥ii.
Aquæ..... ℥iss.
Tinct. cinchonæ comp q. s..... ℥iv.
M. Sig.: ℈i in water after meals.

—*W. A. Hardaway.*

Hyoscin Hydrobromate in Paralysis Agitans.—Robin (*Société des Sciences Médicale de Lyon*, Jan. 20, 1902) states that the hypodermatic injection of hyoscin hydrobromate is a more effective sedative in tremors than in psychical disturbances. It is very useful in Sydenham's chorea, senile tremors, and paralysis agitans. The dose varies from a tenth to half a milligram. Signs of intolerance are nausea and vertigo. Several instances of marked relief in Parkinson's disease are recorded.

THE AMERICAN THERAPIST.

A Monthly Record of Modern Therapeutics,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

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Editorial.

POISONING BY CARBOLIC ACID, taken internally, is more efficiently combated by the administration of alcohol than by any other known antidote. Dr. GEORGE W. SARGENT, in this issue, points out the numerous uses of this acid in surgical, dermatological and other fields.

* * *

THE APPLICATION OF THE X-ray for diagnostic and therapeutic purposes, in the realms of medicine, surgery and dermatology, is becoming more and more generally adopted. Almost weekly the medical journals report some brilliant diagnosis or some wonderful cure effected by its use. It is, therefore, with pleasure that we abstract a very timely article by Dr. G. H. STOVER on the general consideration of the subject.

* * *

CARBONATE OF CREOSOTE, or Creosotal, in the treatment of Pneumonia forms the basis of the article by J. L. VAN ZANDT, reprinted in our February number from *The Medicus*. Of late, his observations have been confirmed by THOMSON, WEBER, and SMITH, all of whom consider the treatment by this drug the best thus far advocated. It is not claimed to be infallible, but the vast majority of cases are said to be aborted or cured. Observations based on such authority are worth confirming, and we look forward to many favorable reports in the near future. We shall be pleased to hear from our subscribers in reference to this mode of treatment

* * *

CHOREA is of such frequent occurrence in general practice, and successful treatment lies so near to the heart of relatives of the patient—a child usually, that the subject when exhaustively presented, with practical suggestions for treatment, must interest every reader of our journal, because of the possibility of advantageously applying some of the information presented. We believe that Dr. TAYLOR'S article, the leader in this issue, will be found very instructive and useful.

* * *

SIR LAUDER BRUNTON'S outline of dietetic treatment in gastric ulcer, reprinted from English journals in this issue, is all wheat and no chaff. It may not be news, but it is presented in a compressed form, which, with the authority it carries, makes this short abstract worth recording and keeping available.

* * *

THERAPEUTIC NOTES, a column of short practical suggestions, is a new department which we intend to maintain regularly in future. The matter is presented in original form, editorially, although culled from everywhere and common property. Our readers will confer a favor by contributing to this column, and also by sending comments on any item printed. Discussion leads to a general increase of knowledge; and little things lead to greater.

Spasmodic bronchial asthma is frequently relieved by the inhalation of two minims of amyl nitrite.

Tympanitic distension of the abdomen is effectually controlled by enemata of peppermint water.

Van Arsdale's combination of balsam of Peru and castor oil, 1:20, is useful for stimulating and healing sluggish ulcerations.

THERAPEUTIC NOTES.

In ulcerative stomatitis chromic acid is invaluable.

Raising the edge of the bed is a great aid in the treatment of enuresis nocturna.

White precipitate ointment is the remedy par excellence for acute varioliformis.

Orthoform is of great value in painful fissures and ulcerations.

Aconitine will often control an obstinate trifacial neuralgia.

Five grains of suprarenal three times daily is recommended by Munro for rosacea.

Test the eyeball tension in every case before using atropine in the eye.

A decoction of condurango will sometimes act as an appetizer in gastric cancer.

Use a three per cent yellow oxide of mercury ointment for pediculosis of the eyelids.

Large doses of quinine are necessary to control the malarial attacks of children.

An ounce of pure cream will often control the constipation of children better than drugs.

Allen, of New York, speaks highly of the local application of a solution of methylene blue in intertrigo, weeping eczema and dermatitis.

In acute coryza, equal parts of suprarenal extract and bismuth, used as a snuff, affords great relief.

A ten per cent. ichthyol collodion to the affected part, together with a fifty per cent. watery solution to the nares, acts almost as a specific in facial erysipelas.

Current Literature.

Treatment of Lupus Vulgaris by the X-ray.—C. A. Greeenleaf (*Buffalo Medical Journal*, Oct., 1901.—*International Medical Magazine*, March, 1902), considers the X-ray treatment of lupus most satisfactory. He states that the danger attending its administration is reduced to a minimum, and repair begins almost immediately. The better the surroundings of the patient and the better his general condition, the better the result. Cases in which no operative intervention has taken place react more favorably than those previously subjected to surgical treatment.

Typhoid Fever.—Begin treatment by administering saline purgatives—Epsom salt by preference, in dose of two drachms every hour, —until large evacuations are procured. If the tongue remains coated and the abdomen tympanic and painful, and if the disease has not yet passed the first week, persist in purgative treatment for at least two consecutive days.

If there are no marked and grave nervous symptoms, if the bronchitis is moderate and the fever does not go beyond 103° Fahr. in the evening exacerbations, keep the patient on slightly acid and refrigerant drinks, and increase the action of the skin by combining with the acetate of ammonia. If the temperature is very high (over 104°), have recourse to bathing two or three times a day with alcohol and water, or aromatic vinegar; make use also of calomel in fractional doses and employ ice-caps and blisters to the extremities.

Only at the end of the first week—particularly during the second, when the adynamia has become preponderant, associated as it most always is, with ataxia, —is it desirable to resort to tonic treatment on a large scale. As soon as the ataxic symptoms appear, prescribe ammoniacal preparations, ether, musk, valerian, henbane; or, by enema, camphor, asafœtida or castor.

As soon as cerebral symptoms appear, apply blisters to the lower extremities. This practice, which is not generally accepted, I have followed with the greatest benefit; under the revulsive action of these agents the delerium, coma, restlessness, insomnia, tremor of the extrimities, etc., diminish in intensity and often disappear.

Coffee, administered in small and repeated doses, is a powerful resource in the treatment of this fever after the end of the first week.—Homem, *Detroit Medical Medical Journal*, November, 1901.

Dyspeptic Diabetes.—A. Robin (*Rev. de Therap. Med. Chir.*) treates dyspeptic diabetes as follows: (1) Adhere closely to the usual hygienic and dietetic regimen of diabetes, and avoid all acids. (2) One and a half hours before breakfast and dinner, take the following powder in a little seltzer water:

Antipyrine	8 to 15 grs.
Sodium bicarbonate	8 to 12 grs.

The antipyrine reduces directly the activity of the liver. (3) Drink only Vichy with meals. (4) After meals take one of the following powders in a little water:

Calcined magnesia, Sodiun bicarbonate	1 dr. of each
Prepared chalk	90 grs.

Divide into twelve powders.

(5) For gastric crises or heart-burn, one of the following powders in water:

Calcined magnesia (heavy)	4 dr.
Bismuth subnitrate	110 gr.
Prepared chalk	110 gr.
Codeine	1 gr.
Sodium bicarbonate	2½ dr.

Divide into siv powders. (Very voluminous powders, which must be well mixed with water.)

This treatment is to be strictly adhered to for several days, and is to be considered as preliminary to the regular diabetic management. The urine is to be examined daily, and as soon as the sugar has disappeared, the drugs are to be discontinued and the patient restricted to a milk regimen. If the sugar reappears, the treatment with antipyrine is to be resumed.—*Indian Medical Record*, Feb. 19, 1902.

Pneumonia.—Dr. Chesebro, in an article on treatment of pneumonia, (*Prov. Med. Jour.*, March.—*Medical and Surgical Monitor*, April 15) concludes: Place the patient under the most favorable hygienic conditions with special reference to ventilation.

Carefully regulate the diet, guarding against constipation, and insisting upon the liberal use of pure, cold water.

Early in the course of the disease employ counter irritants, particularly in the bronchopneumonia of children.

Relieve distressing cough by inhalations and if necessary by the use of opium or its derivatives.

Relieve pleuric pain by the intermittent use of hot or ice poultices or by the subcutaneous use of morphia.

Reduce temperature, if necessary, by bathing.

Stimulate heart with strychnine and in selected cases with alcohol, digitalis, and normal salt solution. It is possible that venesection, which may be followed immediately by the injection of normal salt solution, is indicated in certain cases of engorged right heart and if boldly done may be instrumental in saving life.

Employ large and frequently repeated doses of antipneumococcic serum in desperate cases, particularly in those with a tendency to extension of the inflammatory process.

New Treatment of Phthisis.—Inject through the mouth into the trachea daily, by means of a long curved syringe of the capacity of 60 minims (three drachms) of the following: Eucalyptus oil, oil of thyme, of each 60 minims; iodoform, 20 grains; bromoform, 10 drops; olive oil (sterilized), 28 drachms. The patient feels the solution trickling into his lungs, experiences an agreeable sensation of warmth, and does not cough.

This operation may be perfomed at the outset with the aid of a laryngeal mirror, but the expert will soon be able to dispense therewith. The patient should hold his

own tongue outside the mouth, between the thumb and finger, by means of a napkin.

This treatment is simple and inoffensive, and the effects vary with the stage of the disease. In the first stage cough and expectoration are generally relieved—even stopped altogether—after two or three weeks' treatment; strength, sleep, and appetite also return. In the two remaining stages the results are not so satisfactory, but still considerable benefit may be obtained, expectoration being less abundant and rendered easier, while strength and appetite improve.—Mendel, *in Medical Press and Circular.—The American Practitioner and News*, Feb. 15, 1902.

Diagnostic Value of Hæmoglobin in Syphilis.—The test for the presence of syphilis, which goes by the name of Justus of Buda-Pesth, is commented upon by Andrew McPhail, M.D., in the Montreal *Medical Journal*, (*Medical Review of Reviews*) who reaffirms the following conclusions:

(1) Syphilis, if untreated, has the power of producing a diminution of the hæmoglobin, according to the severity of the attack.

(2) If a patient, the subject of syphilis, absorbs a fairly large quantity of mercury in one dose, the hæmoglobin will sink rapidly and considerably.

(3) This decrease will be restored sooner or later if treatment by mercury is continued; the hæmoglobin will ultimately reach a much higher level than that observed before the treatment.

(4) When the amount of hæmoglobin ceases to sink in repeating the drug, syphilitic manifestations will be observed to remit.

(5) This rapid sinking is a specific phenomenon not to be observed in healthy persons.

(6) The reaction may be observed as soon as the glands remote from the point of inoculation are affected, and in all subsequent stages of the disease. The reaction disappears whenever the signs of syphilis show remission, but will appear during every relapse of the malady.

Ichthyol in Tuberculosis.—Dr. C. T. Spangler, in the *Medical News* for December, 21, 1901, reports very favorably concerning the use of ichthyol in tuberculosis, in which he has found it to yield admirable results. The odor, taste and eructations can to a large extent be avoided by giving the drug in capsules, and if eructations persist, it should be given only after breakfast and at bedtime. After the first few weeks of its use, the patient's cough lessens, and the sputum loses much of its density. It is of little value in the acute complications of consumption, and should be suspended at such times. In cases in which obstinate cough and inflammation of the upper air-passages follow influenza, the patient should be put on ichthyol at once instead of delaying its use until tuberculosis is marked. The writer has found ichthyol of value in tuberculosis, and to avoid the unpleasant effects of the drug itself, has found ichthalbin, an albuminate of ichthyol, to be a most efficient substitute, exerting the characteristic action of the drug without the disagreeable results incident to its administration. —*Cleveland Medical Journal*, Jan., 1902.

PAMPHLETS.

We are in receipt of the following reprints from publications by George M. Edebohls, A.M., M.D., New York:

(1) Migrated Ovarian and Parovarian Tumors.

(2) On Bandages for Nephroptosis.

(3) Is the Kraske Operation Justifiable in Wounds?

(4) Pauhysterokolpectomy; A New Prolapsus Operation.

(5) The Cure of Chronic Bright's Disease by Operation.

(6) The Technics of Nephropexy, as an Operation per se, and as modified by Combination with Lumbar Appendicectomy and Lumbar Exploration of the Bile Passages.

SELECTED PRESCRIPTIONS.

URTICARIA.—

℞ Alcohol.
Sulph. ether āā..... 300 parts
Spir. chloroform,
Menthol āā..... 1 part.

—*Medical Sentinel*, April, 1902.

TO PREVENT CHORDEE.—

℞ Solution of morphine hydrochloride..... 15 minims
Cocaine hydrochloride... ½ grain
Water..... 2 drachms

M. Inject into urethra before retiring.

—*G. Dalton, Edinburgh Med. Journal.*

SYNOVITIS.—

℞ Chloral hydratis..... ℥ss.
Acidi carbolici..... ℥ss.
Aquae q. s..... Oi.

M. Sig.: Apply hot upon layers of lint.

—*Journal A. M. A.*

NEURASTHENIA.—

℞ Ferri sulph. (exsic)
Sodii carbonat (exsic) āā.... gr. xl.
Ext. nucis vomicae..... gr. iii.
Sodii arsenitis..... gr. i.

M. ft. cap. No. xx. Sig.: One after each meal.

—*D. R. Brower, Merck's Archives*, April, 1902.

SPRAY FOR ASTHMA.—

℞ Antyprine..... gr. xv.
Pyridin..... ℥i.
Sod. nitrite..... ℥ii.
Tinct. belladonna,
Tinct. starmonium,
Tinct. lobelia etherear,
Tinct. ipecac. āā..... ℥v.
Glycerin.....q. s. ℥iv.

—*A. Abrams, Med. Fortnighlly*, xx, No. 9.

FOR RHINITIS.—In order to check the secretion in cases of chronic rhinitis with excessive watery discharge, the following spray may be used:

℞ Olei caryophylli.. | 50 (m. viii.)
Terebeni..... 1 | 33 (m. xx.)
Liq. petrolati.... 30 | (℥i.)

M. Sig.: Use as a spray three or four times a day.

In the more acute forms of rhinitis, the following:

℞ Acidi carbolici..... | 06 (gr. i.)
Menthol..... | 06 (gr. i.)
Olei gaultheriæ..... | 06 (m. i.)
Liq. petrolati..... 30 | ((℥i.)

M. Sig.: As a spray four or five times a day.

—*Journal A. M. A.*

Book Notices.

THE PRACTICAL MEDICINE Series of Year Books, comprising ten volumes on the year's progress in medicine and surgery, issued monthly. Under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post Graduate Medical School. Volume II, General Surgery, edited by JOHN B. MURPHY, M.D., Professor of Surgery Northwestern University Medical School, November, 1901. Chicago: The Year Book Publishers, 40 Dearborn Street.

The second volume of this excellent series, presents a most concise and complete selection of the surgical literature published during the year. The range of subjects is large, including among others. anesthesia, operative technique, diseases of the skull and brain, diseases of the kidneys and ureters, of the bladder, intestines, heart and pericardium, etc. The book is replete with numerous illustrations and plates, and the index is complete and well arranged. A careful perusal of its pages will give one an excellent idea of the surgical progress made during the year.

THE NEW INTERNAL BATH.—An improved method of flushing the Colon or Administering an Enema. For Acute and Chronic Diseases. By LAURA M. WRIGHT, M.D., New York: The Health Culture Company, Publishers, 481 Fifth Avenue, New York.

This little monograph contains many valuable and common sense suggestions on the use of the "internal bath." Much longer tubes than those generally used are advised for intestinal flushings, tubes of ten to twelve and twenty-eight to thirty inches being mentioned. While the reviewer has repeatedly used tubes of ten to twelve inches, he doubts the possibility of the larger tubes reaching beyond the sigmoid, certainly not to the transverse colon, as this method professes to do.

Formalin of one-third strength will cure ringworm of the body in two or three applications.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, MAY, 1902. No. 11.

Leading Articles.

PURULENT OPHTHALMIA OF THE NEW-BORN. *

By EDWARD LAUDER, M.D., of Cleveland, O.

This disease is recognized also under the names of *ophthalmia neonatorum* and *blennorrhœa neonatorum.* It belongs among the diseases of frequent occurrence and, because of its disastrous consequences, every physician who has, at any time, the care of infants should learn to recognize the conditions liable to cause the disease and to apply the necessary prophylactic measures, also to recognize the disease itself and be ready to institute the necessary rigid treatment required to combat it. If it is necessary to offer any argument in support of the claims as to the seriousness of the disease and the disastrous conditions following in its wake, we have but to refer to statistics, and to the legislative measures adopted, both at home and abroad, in an effort to ameliorate and eradicate those conditions. It is estimated on reliable statistics that at least 25 per cent. of the blindness that exists in the civilized world to-day is the result of purulent ophthalmia. This blindness, beginning as it does with life itself, so handicaps the individual affected that, instead of becoming a producer, he remains more or less a consumer only, and to that extent a charge upon society. If we calculate the cost of the keep of a single individual, as ascertained by the best regulated institutions which look after the blind, as at least one hundred and thirty-two dollars per year, and that each able-bodied person could earn one dollar per day, we shall determine that the financial loss to the commonwealth of the United States alone, as the results of this disease, exceeds the sum of seven and one-half million dollars annually. Recognizing the seriousnes of the disease, legislative bodies have enacted laws placing purulent ophthalmia in the same category as diphtheria, small-pox, measles, etc., in this respect: that the laws require that all cases of purulent ophthalmia be reported to the constituted authorities. At the present time the laws of most of the European governments and of the following states contain such requirements: Maine, New York, Rhode Island, Minnesota, Ohio, Maryland, Connecticut, Missouri, Iowa, New Jersey, Pennsylvania and South Carolina.

Concerning the bacteriology of purulent ophthalmia, it is known that not all cases are due to the gonococcus of Neisser: any of the pathologic vaginal secretions can set up a purulent ophthalmia; nor does it appear necessary that the gonococcus should be present to render the inflammation virulent and destructive. Nevertheless, its presence should be suspected and looked for. Groenouw,* on the bacteriologic investigations of the etiology of *ophthalmia neonatorum*, gives the results of his investigations in forty cases of children a few days old with ophthalmia. Gonococci were demonstrated with certainty by cover-glass preparations. They were present only once in a pure culture in pus, otherwise invariably with other bacteria, and, indeed, with two, three and even four different kinds, as once with pneumococci, three times with Friedlan-

* Reprint from *The Cleveland Medical Journal*, March, 1902.

* *Archives of Ophthalmology*, Vol. XXVII, p. 557.

der's pneumonia bacillus, while the white staphylococcus and the xerobacillus were almost always present. As to the clinical picture and its relation to the exciting cause of the disease, a typical bacteriologic result was mostly absent in the mild and about half of the severe cases. The remaining severe cases were engendered by the pneumococcus, staphylococcus, and *bacterium coli:* midler cases of ophthalmia by the gonococcus and *bacterium coli.* In the medium and severe degrees of ophthalmia the gonococcus was chiefly present, and the only one case a degenerated form of the *micrococcus luteus* was the presumptive cause, the gonococcus being absent.

It is generally admitted that infection takes place during delivery. Ammon * doubts that all cases of *ophthalmia neonatorum* are due to infection during birth, since many cases develop later than the incubation period would allow. These cases are to be traced to poor hygienic surroundings which favor postnatal infection. Reynolds † says that the disease is always the result of contagion, very rarely, if ever occurring during the process of delivery, the infecting agent being introduced either at the time of attempting Credé's method or some similar mode of prevention, or by unskilled handling of the eyes of the infant by the nurse. The stage of incubation and appearance of the first symptoms varies from one to three or four days after birth. At first the lids become red, slightly swollen, and there is considerable discharge of a thin watery fluid. These symptoms increase rapidly until, within a few hours, the condition presents the appearance of two large abscesses filling the orbital cavities, from which there issues an almost continuous stream of pus. Whenever the lids are separated a large quantity of pent-up pus makes its escape. However, not all cases are of the same intensity, and the degree of severity ranges from the most virulent down to a conjunctivitis of little more than a mucopurulent type. The longer the time intervening between birth and the commencement of the disease, the less severe the attack is likely to be. Taking into consideration the period of incubation and the symptoms as given, it will not be difficult to arrive at a diagnosis; but if proof positive must be had as to the presence or not of the gonococcus, then the microscope should be used.

Knowing the source and cause of purulent ophthalmia in new-born our treatment is naturally divided into prophylactic and curative. Prophylactic measures are essentially those which belong to the obstetrician and may be considered under two divisions: those adopted before the child is born, and those adopted after the child is born.—The first necessarily must be an attempt to free the vagina of all pathogenic germs by thorough washing out with an antiseptic fluid regularly, some days before expected confinement. It is not difficult to understand how next to impossible it is to render a septic vagina completely aseptic. However carefully the irrigation is done, there are likely to remain some germs hidden away among the folds of the mucous membrane. The second division has to do with the destruction of the germs that may have entered the conjunctival sac during the passage of the head through the vagina. For this purpose different germicides have been used, including 1 per cent. and 2 per cent. silver nitrate solution, 1 per cent. bichlorid solution, iodin trichlorid, and carbolic acid. The best results were obtained from the 2 per cent. silver nitrate and 1 per cent. bichlorid solutions. The disadvantage of the bichlorid solution is the irritation it causes. The honor of having demonstrated the value of silver nitrate solution belongs to Professor Credé, of Leipsic, who first brought it before the profession in 1882. Previous to the introduction of his methods the percentage of *ophthalmia neonatorum* in cases of parturition ranged, in various lying-in institu-

* *Münch. Med. Woch.*, Jan. 2, 1900.

† *Jour. Am. Med. Ass'n*, Jan. 6, 1900.

tions, from 19 to 4. Now in those institutions where it is promptly and thoroughly carried out it does not exceed 2 per cent., and even this can usually be attributed to some neglect or carelessness on the part of the attendant. The procedure is very simple. As soon as the child is born the face is wiped clean, the eyelids are separated with the fingers, and a drop of a 2 per cent. silver nitrate solution is allowed to fall on the eyeball. While this is the original Credé method, we believe it to be a safe precaution to follow the application of silver nitrate solution with an application of sodium chlorid solution to neutralize any excess of the former. In all only four cases of disastrous results after the use of this method have been reported; also one after the use of sterilized water. The greater reduction in the number of cases since the introduction of this practice would appear to support the contention that infection occurs during delivrye.

Curative treatment must be carried out with much energy regardless of the tender age of the patient. One of the first necessities is to keep the conjunctival sac free from pus. This is best accomplished by the frequent use of warm 3 per cent. solution of boric acid, a sterile salt solution, a 1-8000 solution of formalin or a 1-15,000 solution of corrosive sublimate. Cold applications should be made from one to three hours at a time, repeated three times daily. Pledgets of linen or cotton moistened and laid on a cake of ice may be employed, and should be changed every one or two minutes, so soon as warm. This treatment should cease when the swelling of the lids disappears, or when the integrity of the cornea is threatened. A germicide should be used to destroy the micro-organism. For this purpose a ½ to 2 per cent. solution of silver nitrate, 1-3000 solution of formalin, 1-5000 solution of bichloride of mercury, or 20 to 40 per cent. solution of protargol are the best agents. Many oculists prefer a 1 per cent. solution of silver nitrate applied to the surface of the conjunctiva once a day until the discharge diminishes, being careful always to neutralize the excess of silver nitrate solution with sodium chlorid solution. With some the use of protargol has found favor, but there being many opinions as to the merits and demerits of this drug, and my own experience with it being limited, I hesitate to express a definite opinion regarding it. Suffice to say, that when it is used it is not necessary to guard against contact with the cornea, nor to neutralize any excess.

*HÆMOPTYSIS.**

By Johnson Eliot, M.D., of Washington, D. C.

This subject is suggested by rather an unusual number of cases seen during the past summer and fall, and it is with the thought that if others have had similar experience, to assign some reason for their frequency.

My cases varied in severity from a mere coloration to a profuse flow, and but one terminated fatally.

In this paper nothing new or original is attempted, but only a *resume* upon present knowledge.

Hæmoptysis, as defined by Billings, is an expectoration of the blood from the lungs and air passages below the epiglottis. This is, I think, a little broad, as hemorrhage from the larynx, such as is often seen in singers when forcing the voice, or in others making use of the voice in a faulty manner, would be wrongly included.

I would limit the term to hemorrhage taking place in the bronchioles and pulmonary tissues. This, unnecessary to give an anatomical description of the lungs, is as an ever branching tree, beginning at the trachea and ending in the alveoli of a spongy nature, supplied with nerves, unstriped muscular fibre, and plentifully supplied with blood vessels.

* Read before the Medical and Surgical Society of the District of Columbia, Jan. 2, 1902. Reprint from the *Virginia Medical Semi-Monthly*, March 21, 1902.

The vessels expanding, on one hand, from the pulmonary artery and contracting on the other to the pulmonary vein.

Hæmoptysis is not in itself a disease, but dependent upon various causes, the chief of which is tuberculosis, and to this the paper will be limited.

Many authorities say little upon this subject, passing it with bare mention.

It is met with in all stages, but of the first stage I would speak, referring naturally to pulmonary tuberculosis.

A majority of cases of phthisis go through the entire course of disease without having hemorrhage; the remarks, however, will be limited to those in which it does occur.

Hæmoptysis should not be lightly regarded as Stricker's investigations in the German army show. Presumably, only healthy individuals would be found here. During a period of five years there were admitted to the military hospitals 900 patients suffering with pulmonary hemorrhage. He divided these cases into three classes—those occurring spontaneously with no apparent cause, those where cause may have been some military exaction, such as drills, and those from injury. Of those without cause, 86 per cent.; of those with cause, 74 per cent., and those from injury, 50 per cent. subsequently developed tuberculosis. I am aware of the belief that hemorrhage does not predispose to phthisis, but these statistics are exceedingly perplexing.

We find the greater number of hemorrhages in adults and the middle age. Acker, of this city, reports a fatal case in a child of three years.

Sexes are about equally affected, a slight excess of males being in my cases.

Naturally it would be found more in localities where tuberculosis is prevalent, such as dampness and soil conditions.

The immediate cause being the giving away of vessels under strain greater than the vessels can stand, when hemorrhage occurs in the early stage of phthisis the vessels will be in a state of nuclear proliferation, or by a consolidation of tissues blocked, favoring a venous stasis, and also partaking of the general weakened condition of the system. Small, aneurysmal dilatations, or necrotic spots of erosion, are found.

The bleeding may be either arterial oozing or from a ruptured vessel of large size—an important distinction to make as having a direct bearing upon the treatment. The diagnosis is easily made, when from a capillary oozing the blood is raised with little difficulty by coughing, is frothy, mixed with mucous either streaked or bright red. There is the sensation of heat and oppression in the chest, and always an undue amount of nervous excitement.

Osler states that when blood is brought up in large quantities, mouthful at a time, it comes from either an eroded vessel of large size or from a ruptured aneurysmal dilatation. Such profuse hemorrhages occur when cavities have formed and the arteries laid bare.

In examining the patient he should be disturbed no more than absolutely necessary, auscultation should be used, strong percussion is contraindicated, as well as other active means of physical exploration, until bleeding ceases, or has been arrested.

The prognosis varies. When due to cardiac lesions, or cancerous affections, the outlook is bad.

In tuberculosis I have met with only one fatal case directly due to hemorrhage. The patient, a female 18 years of age, having a large cavity in the lower lobe of left lung. For two days had small, recurrent bleedings, when, without cause, blood gushed from the mouth, and death ensued in a few minutes.

Most persons, unless depleted by exceesive bleeding, claim relief from the pulmonary trouble following the bleeding and frequently improvement is noted from that time. Possibly the occurrence of hemorrhage causes a realization of the conditions, making them more careful in

regard to their general health or hygiene. The treatment is both immediate and remote. It is impossible to secure the bleeding vessel by surgical means. The bleeding should be stopped and measures instituted for a general tubercular treatment, which would prevent a recurrence.

The nervous excitement which is always prominent, should be allayed by the use of opium, hypodermically administered. At the same time, to prevent the bowels from becoming locked, a cathartic, preferably a saline, given.

Absolute rest should be enjoined, the patient prohibited from talking, the head and shoulders raised and ligatures applied tightly around the limbs.

The room should be cool, crushed ice sucked, and an ice bag applied to the chest. The controlling influence of ice upon the pulmonary vaso-motor system is not thoroughly established, but Rossbach's experiments show that the tracheal mucous membrane may be influenced by external applications.

He further proved that a continuous application of ice to the chest induced congestion of a nervous type. It should be applied for about half an hour, and then removed.

Warm applications, dry cupping and mustard, by relieving the internal vessels, have been recommended. An unstimulating diet, and unless in collapse, alcohol should be withheld, using hyoscyamus or camphor.

Under diagnosis, it was stated that the size of the vessel influenced the treatment. Ergot and digitalis, by contracting the arteries, favor the closure of the small vessels, but at the same time raising the blood pressure. Here the treatment should be exectant.

In capillary hemorrhage they, with atropia, are my preference, and I think their contracting power far outweighs the raised blood pressure of the general system.

In robust individuals venesection has been practiced. The use of nauseants, ipecac, until emesis is induced, is recommended by some. Gallic acid, acetate of lead, and alum interfere with the digestive organs, though also raising blood pressure, they are largely used. Acetate of lead causes most violent gastralgia; chloride of lime, in large doses, gives good results by increasing the coagulability of the blood, and also, according to Ingals, arresting the disease.

Gelatine injections are also spoken of highly. They are used hypodermically, injected into the skin of the abdomen.

Hemorrhage has occurred under all forms of treatment, but I have noticed a small majority of hemorrhages occurred in those taking either the iron or manganese salts.

The hygienic conditions should be inquired into, and in the early stages sanitarium treatment should be instituted. An elevation of 1,600 to 1,800 feet does not predispose to hemorrhage.

Hoagland and Campbell, insisting that there is only an apparent increase of red cells, 50,000 corpuscles to c.c. per 1,000 feet. This increase is at the expense of the internal circulation, and soon subsides.

*A BRIEF NOTE ON THE TREATMENT OF RHEUMATISM BY ASPIRIN.**

By George H. Thomas, M.D., Romney, W. Va.

Any one who has had much experience with the salicylates is acquainted with the difficulty of administering them for any length of time in some patients. It is not easy to disguise their nauseous taste, and on this account, and their irritating action upon the stomach walls their use must often be given up just at the time when they are manifesting their beneficial effect. In some instances a course of salicylates leaves the patient with impaired digestion, which takes much time to overcome. In late years some authors have also called attention to the weakening effect of the

* From the *Va. Med. Semi-Monthly*, Feb. 7, 1902.

salicylates upon the heart, and hence during their administration we must always be on the lookout against cardiac depression when they are given in large doses. Besides, it must not be forgotten that some nervous systems seem to be especially susceptible to the action of salicylic acid, as manifested by ringing in the ears, headache, and even a mild delirious state.

Having experienced quite some disappointment in the use of the salicylates I have recently experimented with acetyl salicylic acid, or *aspirin*, which I have found devoid of the unpleasant effects referred to above. My observations have shown that it does not interfere with the digestion, this being evidently due to its chemical nature, by reason of which it is not decomposed or acted upon in the stomach, while in the intestine the separation of salicylic acid is so gradual that the system is never subjected to the sudden absorption of large amounts, as in the case of the salicylates. My patients have never objected to its administration, because it is almost tasteless, and I have also found that it is completely free from any depressing influence upon the heart. I have given it to persons well advanced in years with perfect safety, as shown by the following case:

Mrs. J., aged about 70 years, had been suffering from chronic rheumatism for a number of years, with an occasional attack of the acute and sub-acute form. Her heart was crippled, and for this reason I was somewhat doubtful as to the safety of any salicylic preparation. However, aspirin very agreeably disappointed me. It was given at first in ten grain doses every four hours, without the least disturbance. In fact, an improvement of the appetite could be noticed under its use. In connection with the drug I administered a pill of iron, digitalis, and strychnine. Under this treatment the pain was relieved, and the swellings of the joints promptly subsided.

Another case was that of Mr. R., a strong young man about 30 years old, who had a predisposition to rheumatism. At the time I saw him he had been suffering intensely for several hours, and could not move a muscle without bringing on a paroxysm of severe pain, which was well-nigh unbearable. The ordinary routine treatment was first prescribed, but without any benefit. Resort was then had to aspirin in 15 grain doses, repeated every three or four hours, if necessary, and after relief was obtained the periods of administration were lengthened to every six hours. This was kept up for a few days, when the patient was completely relieved. I have no doubt that the use of the drug saved him from an attack of acute rheumatism.

In still another case, the patient, a hostler, aged 25 years, had been taking oil of gaultheria and salicylate of sodium for several days for the treatment of muscular rheumatism. The pain was so bad that he was unable to perform his duties, or even rest at night. Here, again, aspirin gave the desired results, and enabled me to retain the case which was about to withdraw from under my care.

These are only a few instances selected at random from a considerable number of cases in which I have tried aspirin, and judging from the results obtained, I have no hesitation in recommending the preparation to my professional brethren.

Bronchorrhœal and Fœtid Bronchitis.—Yeo, in his *Clin. Ther.*, recommends the following combinations in the treatment of the different forms of bronchitis:

℞ Acidi carbol..... 5 | 50 (ʒss.)
Tinct. opii camph.... 90 | (ʒiii.)

M. Sig: A teaspoonful to be inhaled freely from half a pint of hot water; or,

℞ Acid carbol..... | 50 (m. viii.)
Olei pini pumilionis. 1 | 33 (m. xx.)
Aquæ q. s. ad..... 30 | (ʒi.)

M. Sig.: To be diffused from the surface of water kept boiling.

The following is recmmended by him as an antiseptic in fœtid bronchitis:

℞ Thymol..... 3 | 75 (ʒi.)
Acid carbol..... 7 | 50 (ʒii.)
Creosoti..... 7 | 50 (ʒii.)
Spts. chloroform..... 30 | (ʒi.)

M. Sig.: For inhalation.

*ADRENAL SUBSTANCE IN THE INTESTINAL HEMORRHAGE OF TYPHOID FEVER.**

By Warren Coleman, M.D., of New York.

The local hemostatic action of adrenal substance on various mucous membranes is well known and needs no further comment. Adrenal substance exerts a similar hemostatic action when administered internally, locally on such portions of the mucous membrane of the alimentary tract as it may reach, and also upon various bleeding areas while circulating in the blood. Reports of such action have appeared and are appearing in the literature from time to time; for example, in hematemesis from gastric ulcer and cirrhosis of the liver, in hemoptysis snd hemorrhage from uterine fibroids; but, so far as I am aware, it has not been used in the intestinal hemorrhage of typhoid fever. During the past two years I have treated five such cases with adrenal substance. Four of the patients recovered, though in two of them the hemorrhage was very severe. The fifth patient died of toxemia and exhaustion several days later and not of hemorrhage, as was shown at the autopsy. While I am not prepared to say that recovery in the four cases was directly due to the action of adrenal substance, I feel that, in view of our utter helplessness when using the ordinarily recommended hemostatics in the intestinal hemorrhage of typhoid fever, I am justified in advocating the free administration of adrenal substance in these cases. Certainly no harm can be wrought by this treatment when ordinary care is taken, for even very large doses of adrenal substance may be administered without deleterious effects, as happened in one of my cases owing to an order which was misunderstood by the nurse.

A brief account of two of the cases will suffice to illustrate the action of adrenal substance in internal hemorrhage.

Case. I. — Male, aged twenty-seven years. Very severe hemorrhage early in the evening of September 23, the patient losing from three to four pints of blood. He was immediately given fifteen grains of adrenal and the dose was repeated every hour during the night. There were slight hemorrhages—at least blood was passed in the stools—at one and two hour intervals the same night. The patient's temparature was 103° F., and an ice-coil was kept on the abdomen. On the following day fifteen grains of adrenal were given three times a day, and the ice coil continued until September 26; no further hemorrhage occurred after the first night.

Case II.—Female, aged forty-three yrs. Severe intestinal hemorrhage September 12. Adrenal substance was immediately given, fifteen grains every two hours during the day and every four hours during the night. The next day the stools were tinged with blood, and adrenal was given in fifteen grain doses three times a day. On the third day only faint streaks of blood were present in the stools, and treatment was continued in the same manner. No further hemorrhage occurred.

In view of the success which has attended the administration of adrenal substance in these five cases, my present plan, on assuming charge of a case of typhoid fever, is to order five-grain powders to be kept in the sick-room and to give instructions to the nurse to administer one powder on the first sign of blood in the stools, repeating the dose every hour until I can be reached.

When the patient is conscious the powder may be placed on the tongue, chewed a little and swallowed with a little water. In a profound typhoid state, the powder may be given in suspension in water or in a little milk. Occasionally, the first dose produces slight nausea; this did not occur in any of my cases, however. When nausea follows the administration by mouth, ten grains of the powder may be given by rectum, if the diarrhea is not too frequent, and the dose repeated every

* Reprinted from *Medical News*, March 29, 1902.

hour or two. If neither the stomach nor rectum will tolerate the drug, Schaffer's suggestion of an intravenous injection may be tried, but not more than two or three grains should be so given.

I have also had a case of purpura hæmorhagica with severe hemorrhages from the nose, gums and bowels, and extensive cutaneous extravasations, in which adrenal substance was successfully given. The extent and severity of the hemorrhages will be appreciated when I say that the patient was compelled to sit up in bed and hold a basin to catch the blood that was continually flowing from the nose and mouth. On entrance to the hospital, he was immediately put upon fifteen grains each of adrenal substance and calcium chloride, three times a day. This treatment was continued for the six following days with gradual subsidence of the hemorrhages and their complete cessation on the fifth day. Of course, in this case it is impossible to say how much of the benefit resulted from the adrenal and how much from the calcium chloride.

To illustrate the local action of adrenal substance in the stomach a recent letter of Soltau Fenwick* to the *British Medical Journal* may be quoted. He writes that in severe hematemesis he has abandoned all other remedies in favor of adrenal substance and he believes that he has saved the lives of at least five patients in the last eighteen months by this treatment. His plan is to give ten ounces of a freshly-prepared decoction of adrenal powder, containing two grains to the ounce, as soon as possible after the beginning of the hemorrhage, and to repeat the dose in two hours. In two cases in which melena was the only symptom he gave three doses in four hours. He has obtained the best results in comparatively recent ulcers near the cardiac end of the stomach. In chronic ulcers of the pylorus, when the eroded vessel was of large size and embedded in firm connective tissue, he found the adrenal to be of little use. He has also used with benefit enemata of adrenal substance in inoperable cases of cancer of the rectum for the control of hemorrhage.

* *Brit. Med. Jour.*, Vol. II, p. 1596.

Suprarenal Extract. — Suprarenal extract, says Hauser (*Wiener Klin. Wochenschr.*), reduces the hyperemia, favorably affecting catarrhal conditions. It increases the analgesia of cocain by constricting the blood vessels. Cocain may act more effectually on bloodless tissues. Suprarenal extract is indicated in cases requiring cocainization, as less cocain need be used. It also should be given in all inflammations of the nose and throat.— *Texas Medical News*, January, 1902.

Suprarenal Extract in Psychiatry.—Dr. W. R. Dawson concludes (*Jour. of Mental Science*, Oct., 1901) that the chief physiological action of suprarenal gland extracts is increase of arterial pressure, but they also produce a tonic effect upon the heart and on muscle generally and possibly some diminution of metabolism. Owing to the transitory nature of the effects produced by intravenous injection of the extracts, they must be given by the mouth if any prolonged action is to be obtained. Digestion is not impaired by moderate doses. Both for *a priori* reasons and as a matter of experience they appear to be indicated in conditions of excitement and exaltation in which state the blood pressure is usually lowered. Administration for a certain length of time will be found necessary in most cases to produce marked effect where excitement is violent. Although the state of the blood pressure as a rule forms a convenient indication for their use, high pressure does not absolutely contra indicate them, if there was some reason to think that it is not associated with the mental state, as an abnormally high pressure may still be lower than the average of an individual case. Suprarenal extracts seem unlikely to be of benefit in cases of melancholia and where there is much stupor. It therefore seems probable on the whole that the psychoses in which this will be found most useful is in acute mania of fairly recent origin uncomplicated by stupor.— *The Alienist and Neurologist*, January, 1902.

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Editorial.

PROPHYLAXIS OF THE newborn finds no more encouraging results than in the care of the eyes, according to the method of CREDÉ. Were weak solutions of silver instilled into the eyes of every newborn babe, irrespective of the condition of the female genitalia, ophthalmia neonatorum would be the rarest of affections and thousands of blind persons would have their sight to-day. The laws of Germany, making it a penalty for any midwife to treat any affection of the eyes or eyelids, are worthy of being emulated by other countries.

* * *

FAVORABLE REPORTS from the use of carbonate of creosote in pneumonia are rapidly accumulating and the observations of Van Zandt, published in our February number are being corroborated. It is to be hoped that physicians still respond promptly to the circular letter of Dr. Van Zandt, asking for their individual experience, in order that a definite status of this method of treatment may be reached.

* * *

HEMOPTYSIS IS FATAL only in very exceptional instances, such as the rupture of an aneurism or the erosion of one of the larger blood vessels. In treating the hemoptysis of pulmonary tuberculosis, it is well to remember the advice given in our college days, that the hemorrhage will cease "when its time is up." These cases even with profuse expectoration of blood rarely die as the result of hemorrhage, and rest in bed of body and mind, ice to the chest, and an initial hypodermatic of morphine will control the vast majority. The use of ergot and digitalis has been abused and has often done harm. In cases resisting the usual methods, suprarenal extract has afforded good results.

* * *

THE MOST IMPORTANT element in successfully combating the protean manifestations of neurasthenia, is without a doubt the gaining of the patient's confidence. In this condition, more so perhaps than in any other, the personality of the attending physician is a potent factor and will do more toward effecting a cure than any variety of medicinal preparations.

* * *

THE LOCAL ASTRINGENT and hemostatic properties of suprarenal extract and its derivative adrenalin, in regions easy of access, such as the eye, ear, nose, and throat, are all well known. Success in these fields has prompted various observers to try these drugs in internal hemorrhages, and the results have been more or less gratifying. We reprint in this issue an article by Dr. WARREN COLEMAN on the use of suprarenal extract in the intestinal hemorrhage of typhoid fever. So successful has its administration proved to the writer that he now orders five grain powders to be kept in the sick-room and to be administered on the first appearance of blood in stools, an example worthy of following. In purpura hemorrhagica, gastric ulcer, and melaena neonatorum this remedy has found great favor.

CHRONIC URETHRITIS :

℞ Ext. suprarenal cap. ℥ii.
Acid borac. gr. xx.
Aquae cinnamomi,
Aquae camphor ää ℥ss.
Aquae destill q. s. ad..... ℥ii.

M. Macerate for one hour and filter. Sig.: Inject twice daily.

—GEO. L. EATON, in *Occidental Med. Times.*

THERAPEUTIC NOTES.

In trachoma associated with iritis, Claiborne advises the use of atropine.

One part of ammonia and twelve of water are said to preserve soft rubber for a long time.

In phthisis a healthy gastro-intestinal tract is of prime importance.

Glycerite of tannin, one part to four parts of water is a valuable remedy for catarrhal affections of the throat and elongated uvala.

The local application of guaiacol, one part to fifteen parts of vaseline or lanolin, will reduce the pain of acute articular or muscular rheumatism.

Gastralgia is often relieved by a combination of subnitrate of bismuth, charcoal, and carbonate of magnesia.

In scabies, powdered sulphur rubbed into the affected parts, especially at night, will afford relief and cure the disease. This method of treatment, suggested by Sherwell is the least disagreeable and most efficient.

Protect the puncta lachrymalis when using atropine in the eyes of children, otherwise absorption through the nasal mucosa will produce symptoms of intoxication.

Never cocainize the eye previous to applying silver solutions, because the chloride will be formed.

Stypticin has been gradually coming into popularity as a local hemostatic. R. Kaufman, in *Monatsh. f. Prakt. Derm.*, Feb. 1, 1902, describes his experience with it over two years. He gives it with gelatine (suppository shape); it is effective only on abraded mucosa, and does not act on sound tissue. He praises it highly for its usefulness for uterine hemorrhage.

Current Literature.

Methylene Blue as a Sedative. — Elizabeth Lovelace (*Philadelphia Med. Journal*, March 22, 1902) has used this drug in twenty-two cases in the insane and detention wards of the Philadelphia Hospital, and while the results as a sedative have not been so pronounced as in the cases reported by Bodine, still it proved of great service. In two cases the hypodermatic use was followed by painful abscesses, a condition which was subsequently prevented by boiling the solution. In all but six cases a calmative effect was produced, the patients being relieved of excitation but without dullness at the bedside. The effect was noticed three to four hours after administration and lasted from fifteen to twenty hours. In all cases the patients slept well at night, but not during daytime. In but one case did any unpleasant symptom (vertigo) occur. Given *per os* it produced a quieting effect without any gastro-intestinal derangement. This drug is destined to find a place in the ever-growing clan of sedatives.

Carbonate of Creosote in Pneumonia. — W. H. Thomson, New York, (*N. Y. Med. Record*, February 1, 1901) briefly reports eighteen cases of pneumonia treated in hospital practice, with carbonate creosote. Fifteen were males and three were females. One patient died, and the rest recovered, a record which is much more favorable than the usual experience with pneumonia. Both lungs were involved in three patients, all of whom recovered. The patients present a fair average of the ordinary symptoms and conditions in lobar pneumonia, so that they could not be called selected cases. In three very alcoholic patients, one of whom had double pneumonia, the effect of this therapy seemed especially favorable; in all three the patients made good recoveries. It is probable that the drug exerts a special effect upon the course of pneu-

monia, for after the administration of the drug the temperature took a peculiar course. The disease terminated by lysis in twelve, and by crisis in only five cases. In a number of them a fall in temperature of from one to three degrees occurred within twenty-four hours after beginning it, but the next day it would rise again, and so continue with a very irregular course for a number of days before it reached normal. The drug seems also to affect favorably tympanites, which was a pronounced symptom in five cases. The author prefers to give it in 15-grain doses every two hours, night and day, or 180 grains in the twenty-four hours. He has never noted any depressing effect on the circulation when so administered, and there need be no fear entertained of its acting injudiciously upon the kidneys, even if they were previously diseased.—*Georgia Journal of Medicine and Surgery*, February, 1902.

Treatment of Acute Articular Rheumatism.—J. W. Torbett (*Texas Medical News*, January, 1902) says, that it seems that the best treatment should be to stimulate all the emunctories. Give an anodyne, antiseptic, antipyretic, cholagogue, diuretic, diaphoretic combined.

The heart should be carefully examined once or twice daily.

The urine should be examined daily and with the twenty-four hours quantity recorded.

The diet should be soups and milk, with no meat.

Put the patient in a well ventilated room. If the heart is very good cover the patient well with woolen blankets, give a good calomel and podophyllin purge. Begin, if fever is high, with salicylate of soda in ten grain doses with aromatic spirits of ammonia every four hours, and between each dose every four hours give quinine sulphate, salol, and Dover's powders. This will almost always relieve the fever and acute pains within two or three days.

The quinine, in medium doses, equalizes the circulation and antogonizes the inflammation, and is a blood antiseptic; the salol is an intestinal antiseptic, antipyretic, and antirheumatic, while the Dover's powders is an anodyne and diaphoretic.

The patient should be sponged off well twice daily with tepid bicarbonate of soda water after the room is heated up to about 90° F., and all blankets and linen changed.

For hyperpyrexia use the ice cap and tepid baths and hot foot baths. For heart complications use digitalis and iodide of potash.

Treatment of Gonorrheal Rheumatism.—Douglas Westervelt (*The Virginia Medical Semi Monthly*, April 11, 1902) says: *In the treatment* of this disease, we must not lose sight of the fact that we have to deal with a mixed form of disease. We have the gonorrheal element confronting us, and we also probably have the rheumatic element to claim our attention. Besides these conditions, we may also be required to treat the general health of the patient. If there is a urethral discharge, it must be treated. If there is a rheumatic condition, it must be treated. If there is an impaired state of the health, this also must engage our attention. The local treatment of the articular inflammation will not differ materially from that of any inflammation of the joints. We must allay inflammation, stimulate absorption of effusions, and restore normal functions of the articulation.

There are many methods of accomplishing these objects. For the urethritis we may resort to instillations of permanganate of potash, with the internal administration of cod liver oil, with five grains of iodide of potassium to each tablespoonful of the preparation—a tablespoonful to be given four times a day after meals and at bed time. The iodide of potassium may be increased or diminished according to the requirements of the particular case. This disease, with its painful accompaniments, has a depressing effect on the vital processes, and rapidly impairs nutrition.

The iodide of potassium removes the cause of the pain by its eliminating properties, tones up the nervous system, and by regulating the kidneys allays the acridity of the urine. With such a constitutional corrective and suitable diet, and mild antiseptic injections or irrigations this disease is readily subdued. Besides the general restorative action of the above remedy, it directly increases the excretion of urine and uric acid, and renders the urine less irritating to the inflamed mucous membrane of the urethra. This preparation is therefore intended to meet both the rheumatic and gonorrheal conditions of this troublesome disease.

Gonorrhea in Women.—Dr. Byron Robinson, of Chicago, has an article in *Medical Brief* for December, 1901, in which he treats the subject in hand admirably

He says that gonorrhea is the most universal of all diseases. To understand the process of gonorrhea, examination of the genital discharge is an essential. All sexually adult women have a white discharge from the uterus, because it possesses numerous glands. If the subject does not observe the discharge it is because it becomes absorbed before it reaches the vulva. The doctor then divides discharges as follows:

Discharges	color	white. yellow. green.
	odor	decomposition. placental debris. carcunna.
	micturition	pain. frequency.

If the discharge is yellow it is infected with pus organisms; if green, the bacillus pyocyanicus.

The reason the gonorrhococcus is so dangerous is it desquamates the epithelia, preparing the area of infection for all other microbes. Gonorrhea is the most persistent disease that attacks the mucosa. It may exist symptomless for years, to resume activity by stimulation or excess. Gonorrheal germs or their products may gain access to the circulation, ending in violent inflammations in joints, endocarditis, meningitis and mixed infections. The discharge of gonorrhea persists after the disappearance of the gonococcus on account of the desquamation of the epithelia. The gonococcus may be obtained in pure culture, though after many generations (Bumm found the thirteenth generation) it loses its virulence.

The gonococcus thrives best in delicate, soft, glandular epithelium, as in endemetrium and endo-salpinx. It is exceptional for the disease to penetrate deeper than the superficial connective tissue. The dangers from gonorrhea in women arise from the spread of the infection from the vulvae to the peritonium, from the urethra to the kidneys, and from the rectum into the eyes. In 1879 Dr. Neisser announced his discovery of the gonococcus, which made possible a positive diagnosis, placing it in a medic-legal light and recognizing that a germ was capable of reproducing this disease.—*Med. Review of Reviews.*

Adrenalin Chlorid. — Booth (*Albany Medical Journal*) considers that this drug is one of the most valuable ever added to the list of laryngology or rhinology. Dr. Jokichi Takamine isolated the active principle of the gland, which seems to possess all its virtue and does not undergo decomposition when sterilized. Its solutions are stable, but it does not mix with oils, and therefore it is excluded from the various petroleum preparations. When this drug is applied to the field of operation, considerable shrinkage of the tissue will be noticed, and if cocain is then applied the absorption is decidedly less, and the danger of intoxication is correspondingly decreased. As might be presumed, the hemorrhage during the operation is also decidedly less, but when the tissues regain their normal tone considerable bleeding is apt to follow. This can be obviated by packing the cavity with cotton soaked in a 1-10,000 solution; the best strength to apply before operating is from 1-3000 to 1-5000. If this solution is allowed to re-

main in contact with the tissues too long a slough is apt to follow. This evidently is due to the fact that the vessels are contracted too long and the vitality of the tissue is so reduced that it does not recover. In hydrorrhea a 1-10,000 solution will be found of value, and also in singers the use of this strength solution in a downward spray in the larynx will allow the use of the voice in a very short time. In some there seems to be an intolerance, and the application to the nasal cavities will produce severe sneezing and burning in all the air cells adjoining, severe head ache, and injection of the conjunctiva.—*St. Louis Clinique*, January, 1902.

NEURASTHENIA.—In an article on this subject published in the *Texas Med. News*, February, 1902, J. K. Brown states:

The first thing to do with a neurasthenic patient is to obtain his confidence. This is best done with an elaborate examination. Examine everything and continually impress the patient with your ability to cure him. Then bring suggestions to bear upon him. I do not mean hypnotic suggestions, because neurasthenic subjects are difficult subjects to hypnotize, and it takes an expert to do anything with them. Wetterstrand treated some forty odd cases by means of hypnosis and cured thirteen. So you see even in the hands of so skillful a physician the results were not good. If he is asked about his health he should be told to say that he is better. Under no circumstances should he be allowed to swap symptoms with one similarly afflicted. It is for that reason that sanitarium treatment is unsuitable for these cases.

Rest is our sheet anchor—mental and physical rest. In the severer forms the rest treatment as outlined by S. Weir Mitchell answers every purpose, but it is entirely unsuitable for others. The rest should be in recumbent position, and patients should stay in bed till noon, and when work must be attended to it should be for a short time each day and always short of fatigue. Don't let the patient sit and mope.

Exercise should be judiciously graduated, and should never be carried to fatigue. There are so many forms of exercise that one can always find a suitable one for every case. As a rule, massage and passive exercise are not necessary except in very bad cases. Horseback riding has done wonders for a case that I now have under treatment. Bicycling, golf, croquet, pedestrianism, rowing, fishing, swimming are all excellent, but must be carefully graduated. For one woman I prescribed a walk of increasing length until she could walk briskly four miles without feeling anything but good. It is very important to look after the patient's posture in whatever exercise they are taking. If the posture is faulty, we can not hope for good results. In one case it was discovered that one leg was an inch shorter than the other, causing a curvature of the spine and attendant pain and discomfort.

In a general way, each case is a law unto itself. As a rule, these cases require a nitrogenous diet and a generous one. Bnt I have seen a case where a met diet would not do at all. As a rule, milk is well borne, and eggs should be given plentifully. Plenty of water should be drunk.

Drugs are, as a rule, of very little value. Strychnia in tolerably large doses 1-30 to 1-20 t. i. d., or even more for a short time, or intermittently. Where hypnotics have to be resorted to, the bromides are probably the best. Daily doses of some aperient water are beneficial, and I have found a course of the mixed sulpho-carbolates of very great benefit.

Hydro-therapy in the form of cold sponge baths or application of a cold wet sheet upon rising is of extraordinary benefit. Dr. Mayer has recently called attention to the very great value of cold air treatment. The patient, being heavily protected, is placed on a veranda or other out of door place and remains there all day,

in a temperature below zero. The colder the day the greater the benefit.

To regulate the bowels, or rather to maintain elimination by the bowels, there is nothing equal to judicious doses of saline waters.

Where the sexual apparatus is weak it is best to prescribe total abstinence and also assure the patient that an occasional nocturnal emission is of absolutely no consequence. Above all, do not prescribe aphrodisiacs. I think they are very harmful.

The urine should be rendered slightly alkaline and diuresis should be maintained by means of free water drinking. It is best to prescribe water drunk at stated intervals, and where the patient can afford it, one should employ some commercial water for their psychic effect.

The patient should report once a week, and give a full account of himself.

But even with best of care, many cases of neurasthenia will disappoint us by frequent relapses. Then, too, these cases begin to go the rounds, and God knows where they finally wind up.

Influenzal Colds. — Gathering points from his note-book A. C. Griggs, in the *Medecal Times*, January, 1902, has found the following combinations very serviceable:

℞ Morphinae sulphatis.....gr. ss
Potassii bromidi,
Potassii citratis.....āā ʒ ij
Syrupi ipecacuanhae..... ʒ ij
Succus limonis..... ʒ iss
Syrupi simplicis.....q. s. ad ʒ iij
Sig.: Two teaspoonfuls every two hours.

When expectoration is established, replace the ipecac and potassium citrate with squills and ammonium chloride; or

℞ Potassii citratis..... ʒ i
Apomorphinae hydrochloratis...gr. i
Succus limonis..... ʒ i
Aquae q. s. ad ʒ iii
Sig.: Dessertspoonful very three hours.

Or:

℞ Morphinae sulphatis.....gr. i
Potassii citratis..... ʒ iij
Syrupi ipecacuanhae,
Syrupi scillae.....āā ʒ iv
Glycerini..... ʒ ss
Syrupi..... ʒ ss
Aquae q. s. ad ʒ iij
Sig.: Teaspoonful every two hours.

For the rheumatic pains and fever:

℞ Sodii salicylatis gr. clx
Aquae menthae piperitae..... ʒ iv
Sig.: Drachm every three hours.

For the fever:

℞ Spiritus Mindereri ʒ i
Spiritus aetheris nitrosi..... ʒ iij
Tincturae aconiti..... ♏ xxx
Papainae ʒ ij
Aquae q. s. ad ʒ iv
Sig.: Dessertspoonful every two hours.

The Treatment of Morphinomania. — O. Jennings (*Lancet*, August 10, 1901—*Journal of Nervous and Mental Diseases*, January, 1902) points out that in the treatment of a case of morphinomania the first thing to do is to simplify the case by stopping the use of all other stimulants — alcohol, cocaine, or whatever they may be—which the patient may be taking; and it is comparatively easy to do this, for the morphine is what the patient craves for, and he will give up everything for its sake. Having then insured that we have but one vice to deal with, the next thing is to get rid of the use of the syringe by substituting some less harmful mode of administration; and this again ought not to be inordinately difficult; the patient can be persuaded to give up his temporary joy if we will allow him the means of escaping the continual miserp which deprivation, or even material diminution of his daily dose of morphine produces. The morphine given for this purpose should be administered by the rectum. Of course the amount given in this way will have to be larger, perhaps twice as large as that taken hypodermically. But that does not matter. The patient is weaned from the constant desire for the immediately stimulating effect of the syringe. When this is accomplished, we must gradually reduce the dose, as quickly as possible, but at the same time as slowly as is necessary to effect a cure without producing distress; and with the object of warding off this distress, we must administer cardiac tonics such as sparteine or digitalis. In some cases nitroglycerine is useful. Then, in view of the almost constant presence of hyperacidity, bicarbonate of

soda should be administered; and lastly one must remember that the hot-air bath —the Turkish bath followed be massage and the cold douche—is one of the best of sedatives, and perhaps also tends to eliminate some of the toxic material which tends to accumulate in the blood of these "acid" patients. At any rate the use of the hot air bath is of great service not only during the process of reducing the morphine but also afterwards. It is very important that as the morphine is reduced the patient should be kept to a strictly moderate and as a general rule a non-alcoholic regime. The tendency is for these patients, as they recover, to eat too much, which again brings on hyperacidity, and this in turn leads to a renewal of the craving. To prevent this a simple life with a fair amount of exercise, and the regular use of Turkish baths is to be advised. The great thing is to get rid not merely of the morphine but of the craving for it; and this cannot always be done by strength of will, by good resolutions, or even by subjection to restraint, unless attention be paid to the conditions which lead to the desire for the drug, and also to the discomforts which follow the cessation of its use.

GLONOIN.—The doubt is expressed here that glonoin in proper dosage ever caused death. In fact a granule or tablet of gr. 1-250 may be given every ten to fifteen minutes by a skillful hand until the desired effect, then every half, one or two hours, with prompt and brilliant results. In great emergencies the dose may be doubled and repeated at same intervals, and never any untoward effects. Its employment in this way is a daily practice in the hands of many physicians. By those who, from long experience, are best acquainted with its qualities, it is looked upon as a veritable life saver. Its effects are said to be short-lived; hence the need of frequent repetition of dose. As generally understood, the indications for its use are pallor of the face and cold, clammy condition of the cutaneous surface.

Direct action seems to be upon the vaso-motor centers, promoting dilatation of the arterioles in all parts of the body. In paroxysms of colic, wherever located, pallor and coldness and clamminess of surface, use as observed. This condition is produced by contraction of the capillaries. The same state may coexist in some of the internal organs, while in others dilatation. Glonoin powerfully dilates, and thereby relieves congestion and equalizes circulation, bringing relief to the suffering organs in intestinal, hepatic and renal colic.

For dysmenorrhea it is highly esteemed by many practitioners who rely chiefly upon it to assuage the pain. It is very generally esteemed as a valuable remedy for angina pectoris, although it is best adapted to treatment of interval, nitrite of amyl being more prompt and decisive for the paroxysm.

In the various disordered conditions of the heart, as fatty degeneration, dilatation, syncope, heart failure, and so on, it can not be prized too highly because of the ready relief afforded. Asthma, facial neuralgia, toothache, earache, and a long list of aches yield the right of way to glonoin. Its promptness and effectiveness make it of the first importance in collapse —perhaps it should be the first thing thought of, and therefore always in the doctor's emergency game-bag.

Asphyxia from drowning or hanging, narcosis from chloroform or of the newborn, are speedily relieved.

The foregoing only half expresses the esteem in which this drug is held. The more a practitioner gets acquainted with it, the more its sphere of usefulness expands. In emergencies it is one of the most valuable arms of precision.

One consideration that deters many practitioners from its use is the fact that it is dynamite, the most dreaded of all explosives, and therefore must be a very dangerous medicine. Get it pure and there is no more danger in it than strychnine, opium, and many others in constant use by the profession.—*Med. Summary—The Cincinnati Lancet Clinic*, Mar. 15, 1902.

SELECTED PRESCRIPTIONS.

Dyphtheria.—

℞ Sol. Formaldehyde (0.25%)..... ℥ i
Potassii chloratis ℥ ij
Acid. boracici ℥ i
Glycerini..... ℥ ss
Aquae q. s. ℥ iv

M. Sig.: Use as a spray.

—*St. Louis Clinique*, March, 1902.

Aborting Buboes.—

℞ Ungt. Hydrargyri,
Ungt. Belladonnae,
Ichthyol,
Lanolini ää part 8.

M. Sig.: Apply on lint every second day.

—Christian.

Rheumatism in Children.—

℞ Sodii salicylatis..... ℥ i
Liq. Potassii citratis ℥ ij
Tinct. Cardamom. comp ℥ iii

M. Sig.: Two teaspoonfuls every two hours for a child five years old.

—W. M. Powell.

Obesity.—

℞ Arsenous Acid gr. 1/60
Adonidin.....gr. 1/12
Thyroid gland, dry powder ...gr. ij

M. Ft. C. T. No. 1.
Sig.: One or two powders daily.

—Heinrich Stern.

Pruritus Ani.—

℞ Carbolic acid (crystals) ℥ ss
Calomel..... ℥ i
Tar ℥ iss
Menthol gr. xx
Oxide of zinc ℥ ii
Simple cerate ℥ ii

M. Sig.: Wash parts with hot water and apply on cloth.

—George J. Munroe.

Dandruff.—

℞ Formaldehyde Sol. (40%),
Glycerine ää ℥ ij
Spts. Myrciae ad ℥ vi

M. Apply to scalp every morning.

—W. R. Lowman.

Varicose Ulcers.—

℞ Carbolic acid ℥ ss
Boric acid,
Camphor ää ℥ ij
Ichthyol ℥ v
Expressed oil of almonds ℥ iiss
Ointment zinc oxide..... ℥ iiiss

M. Sig.: Apply after cleansing with green soap and water.

—*Merck's Archives.*

Book Notices.

Genito-Urinary Diseases and Syphilis.—For Students and Practitioners. By Henry H. Morton, M.D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island College and Kings County Hospitals and the Polhemus Memorial Clinic, etc. Illustrated with half-tones and full page color plates. Pages XII-372. Size 9 ½ X7 inches. Price, extra cloth, $3.00 net, delivered. Philadelphia; F. A. Davis Company Publishers, 1914-16 Cherry Street.

This volume, of some three hundred and seventy-two pages, covers in a concise form a very wide field of genito-urinary diseases and syphilis. Beginning with phimosis, the author carries us through gonorrhea with its complications and sequelæ cystitis, vesical and renal calculi, hypertrophy of the prostate, pyelitis, diseases of the testicles and tunic, syphilis, impotence, etc. Diagnosis, symptoms, and treatment are presented in a short, able and accurate manner, and the conditions, operations, and instruments are illustrated by numerous plates and drawings, which are remarkable for their excellence and ease of interpretation. The chapters on the various topics are to the point, without any unnecessary comments or divergent opinions. The printing, in heavy type, of the most salient points, is a commendable feature. Despite the fact that there is no lack of works on the same subjects, this book will prove a valuable source of ready reference to the student and general practitioner, who will find in it the right thing in the right place.

The International Medical Annual for 1902 (20th year of publication) is a handsome, compact volume of about 700 pages, and a valuable and serviceable book of the kind. The contents in the way of abstracting and reviewing last years' work in medicine, are comprehensive and readily available by means of a complete index. Prospectus can be obtained from the publishers, E. B. Treat & Co., 241 West 23d St., New York.

The American Therapist.

A MONTHLY RECORD OF MODERN THERAPEUTICS,

WITH PRACTICAL SUGGESTIONS RELATING TO THE CLINICAL APPLICATIONS OF DRUGS.

VOL. X. NEW YORK, JUNE, 1902. No. 12.

Leading Articles.

SOME CONSIDERATIONS ON ACTINOTHERAPY.

By WILLIAM S. GOTTHEIL, M. D., and MILTON W. FRANKLIN, M. D., New York City.

The generally accepted radiation theory of light is based upon the supposition that the all-pervading ether can be set in motion by the vibration of molecules of ordinary matter, and that this motion obeys the ordinary laws of wave motion. Thus energy is conveyed in waves from one body to another; and this process of energy transference is what we call radiation.

The ether waves are best likened graphically to the motion that is imparted to a rope which is fixed at one end whilst the other is moved in a plane at right angles to that of the cord. The ether oscillations are at right angles to the direction in which the wave is moving, and parallel to its front. Those waves produced by vibrations of molecules of a frequency ranging between 20,000,000,000,000 and 40,000,000,000,000,000 oscillations per second have a range, to use a musical analogy, of about eleven octaves. Of these less than one octave, those between 392,000,000,000,000 (red end of the spectrum) and 757,000,000,000,000 (violet end of the spectrum) oscillations per second, produce a sensation of light upon the retina. In other words, the examination of the solar spectrum by eyesight shows us a band of color running from the red to the violet which represents only about one-eleventh part of the entire spectrum as we now know it to exist. Ten-elevenths of the spectrum is invisible, and is examinable and demonstrable only by other methods; and these invisible areas are known as the infra-red and the ultra-violet regions. Only a small portion of the invisible spectrum, about one octave, is situated in the infra-red; whilst by far the greater part, over nine octaves, is seated in the ultra-violet.

Now, since all these waves traverse the ether at the same rate of about 186,680 miles per second, and since they have different frequencies, they must have different lengths; and these wave lengths are readily found by dividing the rate of progression by their frequency.

Ether waves falling upon bodies produce effects that vary with the length of the wave and the nature of the body impinged upon. Certain wave lengths falling upon opaque bodies produce an effect recognizable as warmth, and we then speak of the rays as a beam of radiant heat. The same or other rays falling upon the eye might produce a light sensation, and are then designated as a light beam. Or again, falling upon a sensitive photographic plate or the chlorophyll containing tissues of a green leaf, they might produce a chemical change, and be properly spoken of as a base of actinic or chemical rays. Thus the energy produced by the ether waves may be converted into heat, light, or chemical action.

All ether waves are appreciable in these varying ways, but to different degrees, as has been said, in accordance with their wave lengths and the nature of the body acted upon. They all produce heat, into which their energy is transformed when they fall upon and are absorbed and extinguished by an opaque body. Waves of a less frequency than 392,000,000,000,-

000 oscillations per second are too slow to produce a sensation of light upon the retina, or to effect much in the way of chemical change. They are recognizable only after their impact on and absorption by other bodies and the conversion of their radiant energy into heat; they are therefore called dark heat rays.

On the other hand, waves of such high frequency as to be invisible to the eye, when they fall upon certain chemical substances, so amplify the free vibration of their molcules that the repeated rhythmic blows shatter this latter into its component atoms. These are the rays called chemical or ultra-violet.

It is with these chemical rays of the ultra-violet end of the spectrum that we are especially concerned in actinotherapy. Their power of producing chemical change is the force that we are endeavoring to employ; and this depends chiefly upon the frequency and to a less degree upon the intensity, of the incident rays. For rays of a given length but of different intensities, the chemical change is proportionate to the product of the intensity by the length of exposure.

We have a wide range of choice in selecting the source of radiant energy to employ, and the actinic quality of the ray is the determining factor in our decision. The electric arc has been found to possess a light far richer proportionately in actinic rays than the sunlight itself, and in the form of the larger actinolytes makes a convenient and efficient apparatus. Chemical modifications of the carbons will, we think, enable us to produce arcs which are far more active in actinic energy than the ordinary carbon ones, and experiments in that direction are now under progress. But even with the carbon electrodes, the great preponderance of chemical over heat and light rays forms a theoretical justification of the treatment whose therapeutic value Finsen has so brilliantly demonstrated.

Comparatively little has yet appeared with regard to the therapeutic applications of actinotherapy. This is due to two things. In the first place it was introduced into practice in Europe for the treatment of lupus vulgaris, which is there a common and very disfiguring and recalcitrant malady. In America lupus has been a comparatively rare disease; one or two cases being the average of a year's experience in an ordinary clinic. In recent times, however, since the immigration from Russia, Italy, and other countries where the disease prevails has become large, we see more cases, especially in those districts of our seaport cities where these people mostly settle. Nevertheless the difference is well shown by comparing McCall Anderson's statement, that it is a common affection in Scotland, with the statistics of the American Dermatological Association, which places its frequency at 0.433.

The other cause is the expensive nature of the apparatus required and the cost of the treatment itself. Comparatively few practitioners are able to make the necessary installation; and comparatively few patients are willing to pay for the course. This is a defect that we hope soon to see remedied. It seems possible to make an apparatus for actinotherapeutic skin work that shall be both simple and effective; that shall be comparatively inexpensive in itself; and, that running on a low amperage, shall not require the heavy wiring or the use of the large amount of current that is the case with those at present at our disposal.

The impossibility of employing the method in institution work has so far prevented our using it on any large scale; the number of cases is still few. We have suggested its employment in tubercular affections of the internal organs, based on the one hand upon its positive effects in tubercular disease of the skin, and on the other, on the proofs of the penetration of the concentrated actinic light into the inmost recesses of the body, which we presented in the *Medical Record* of April 19 of this year. Therapeutic employment in

this field, however, we must leave to the clinicians of internal medicine.

In lupus vulgaris the actinic treatment occupies a definite and assured position. It has been employed in Europe for a number of years quite sufficiently to enable observers to determine the results that have been attained. Large numbers of cases have been permanently cured, and that in a most conservative manner. A minimum of disfigurement with excellent therapeutic effects can be confidently claimed for it. The same holds true of scrofuloderma, tubercular ulceration of the skin, and lichen scrofulosorum. Our own experience in lupus has been limited, but satisfactory. The infiltrations melted away by interstitial absorption. With the large apparatus at our disposal now, however, it has been necessary to cut down both the time of exposure and the frequency of the sessions, to avoid the superficial vesiculation that otherwise occurred.

The deeper seated sycoses, more especially of the beard, where there is pus infection conjointly with that with the ringworm parasite, would seem to be especially suited to the treatment. We have treated two cases, one of which was cured after three sessions, and the other of which was much improved when he stopped treatment after seven sittings. We should strongly recommend its employment in obstinate ringworm of all varieties.

We have not had occasion to treat lupus erythematosus by the method, but Dr. R. F. Williams, of Richmond, Va. and several European observers, have obtained positive results.

We have treated one case of sarcoma of considerable extent, in which some of the nodules disappeared by a process that could almost be called necrotic under influence of the light. The case is still under treatment, the extent of the disease rendering it necessary to apply the light to one part of the affected tissue at a time only.

Several cases of eczema of the mycotic variety, some pustular acnes, and one ulcerating gumma were treated with very satisfactory results.

At the present time we have several cases of localized pruritus, lupus, dermatitis, etc., under the actinic treatment, concerning which we are not as yet prepared to report.

Some time ago we expressed the belief that improvements in the apparatus would enable us to shorten the time of application and the frequency of the treatment very materially. This has certainly been effected. Finsen gives daily sessions of an hour. We have latterly found that sessions of ten to fifteen minutes thrice or even twice weekly were quite sufficient. Longer exposures at more frequent intervals cause the excessive local reaction adverted to above. In this connection, however, mention may be made, and especial stress laid upon the fact, that the deep and recalcitrant ulcerations, and the scleroses that have been so frequently reported from the use of Röntgen rays have never occurred in actinotherapeutic treatment. This is not only our own experience, but is also that of the European investigators who have used the method for a number of years.

THE GENERAL MANAGEMENT OF RICKETS.

By Jacob Sobel, M.D.,

Acting Visiting Physician (Diseases of Children) to the Good Samaritan Dispensary, New York City.

Few general diseases of infancy and childhood render the patients more susceptible to intercurrent affections than rickets. Far from being a disease of the osseous system alone, its pathology embraces the muscles, ligaments, mucous membranes and nervous system, all of which suffer in the different cases to a greater or less degree.

The rachitic patient being so prone to secondary ailments, the first consideration in treatment should be prophylaxis; for when once the condition has manifested

itself, time, perhaps more than any other element is necessary for effecting a cure.

Rickets is essentially a food disease, a condition due either to malassimilation or to the absence from the infant's food of those ingredients necessary for its proper growth and development. While poor environment plays a part in its production, it is only of secondary importance to diet. Prophylaxis then embraces a proper understanding, on the part of the physician and patients, of the preparation and administration of the child's dietary. The large number of infant foods, all of which are considered by their manufacturers as perfect substitutes for mother's milk, are to be condemned as permanent foods, because they contain a maximum of carbohydrates and a minimum of fats and proteids; the latter are the elements so necessary for the child's progress and their long continued absence from the food is followed by disastrous results. It would be better if the ill-effects from their use were manifested at an early stage, so that they might be discontinued. Unfortunately, on account of the large percentage of carbohydrates, these patients grow large and fat, and parents rejoice in the rapid growth of the child. This increase in weight and fat, however, does not carry with it an increase in strength, hence the pale and flabby condition of rachitic babies.

Under no circumstances, should such preparations or condensed milk be continued for any length of time without the addition of fresh milk or cream. Contrary to the opinion generally held, breast fed babies are commonly enough the subjects of rickets, so that the physician has not accomplished his entire duty when the baby is left to the breast. A mother's milk which lacks the proper quantity of fats and proteids may very well produce rachitic manifestations.

It is the province of the physician to prevent as well as to cure disease; no part of intelligent prophylaxis is more worthy of careful study, nor will accomplish more gratifying results than a proper education of the laity in the simple rules of infant feeding.

Prophylaxis having been disregarded either through ignorance or lack of proper advice, and the disease having made its appearance, treatment divides itself into hygienic, dietetic and medicinal.

It is idle to suppose that medicine alone will cure or even modify the pathological changes and their resulting symptoms; our principal aim should be to place the system in such a condition that it will be able to cope with outside infection of all kinds.

An abundance of fresh air by day and night, plenty of sunlight, cold sponges especially in the morning, and avoidance of all unnecessary excitement are of prime importance. The diet should be studied most carefully in each case, adapting the food more to the child's digestive capacity than to its age. A rachitic child of seven months can frequently only *digest* proteids and fats in the proportions generally advised for a babe of three or four months; his digestive apparatus is feeble, and it is only by careful watching and experiment that the suitable combination will be found. It is not the amount of food which is taken, but rather the amount assimilated which tells on the growing organism.

In all cases the juice of a small or medium sized orange and beef juice in appropriate quantities (from half to an ounce and a half daily) are to be given; both are well borne and relished as a rule. Plenty of fresh milk, diluted in the proper proportions, preferably with dextrinized oatmeal water, with the addition of fresh cream is indicated. The latter supplies fat in its most convenient and acceptable form. An occasional soft boiled egg to children over one year of age is advantageous.

Too much must not be expected from the use of drugs. Certain it is that they have but little if any effect upon the deformities, although the nutritive tonics by improving the general condition are use-

ful. The earlier the disease is recognized, the more thoroughly hygienic and dietetic rules are followed, the fewer the drugs that will be required.

Cod liver oil is one of the *best* drugs for general use. It supplies a necessary amount of fat, and when not producing gastric disturbance, aids in increasing the body weight, relieving constipation, and facilitating, it is said, the assimilation of salts. It is distinctly contraindicated in warm weather and in patients with irritable stomachs. When possible it should be taken pure and *always after meals;* in such form I have found it more efficacious and no more disagreeable than in the emulsion. Two to three drachms daily will answer in most cases.

Phosphorus, lauded as a specific by Kassowitz, is used quite extensively with varying results. Some incline toward the views of Kassowitz that it is the remedy *par excellence*, others again see no special advantage in its use, and, in fact, discourage it on account of its possible poisonous properties. I have had the opportunity of using the drug in numerous cases of different degrees of severity. in doses ranging from gr. $^1/_{200}$ to gr. $^1/_{100}$ three times daily, and I have never observed any ill-effects. I know, however, of one case of phosphorus poisoning occurring in the practice of an eminent New York pediatrist, and scattered through literature a number of similar cases are reported. The drug may be administered in the form of the elixir (3 i= about gr. $^1/_{10}$); Thompson's solution (3 i= gr. $^1/_{10}$), or as Kassowitz advises it in cod liver oil (0.01 to 100.0). My experience with phosphorus coincides with that of other observers; in some of the early cases a marked improvement in the general symptoms and crainotabes takes place, while in others and in most of the late cases the effect seems nil. As a general tonic it has been my custom to give a combination of syrup. ferri iodidi m iii—vii, syr. hypophosphit. m x—xx, aquae q. s. 3 i, three times daily after meals.

As to special symptoms, constipation is the one for which relief is most generally sought. Depending as it does upon atony of the intestinal muscles, our thoughts must be directed to stimulating them into activity, a condition brought about more by general than by special treatment. Increasing the quantity of cream will often accomplish more than mild laxatives. An occasional dose of calomel or castor oil, an emema of olive oil, or soapsuds, or a glycerin suppository may be required. Abdominal massage systematically conducted, and the use of strychnine internally, act as intestinal stimulants. Distention of the abdomen, secondary to constipation and its resulting fermentation, is sometimes efficiently controlled by enemata of peppermint water.

Convulsions are better guarded against than treated; overfeeding, particularly before retiring, must be avoided. An overdistended stomach will not only cause distress in breathing, but it will predispose to infantile eclampsia. There can be no question of the truth of the statement made by Holt, that, "as a predisposing cause of convulsions in infancy, rickets takes first place." Chloroform inhalations will frequently control the attacks, when all other measures—enema, bath, chloral and bromides, etc.—have failed.

The treatment of laryngismus stridulus which occurs more commonly in rickets than in any other condition, is that of the disease which causes it. Extreme restlessness is one of the early manifestations of the disease and is frequently associated with sweating of the head. Sedatives, such as bromide of sodium and antipyrine, have a soothing effect upon this nervous phenomenon.

Much may be done to prevent deformities by insisting that the child lie on its back instead of sitting up, and by discouraging attempts at walking before the limbs are in a proper condition to support the weight of the body. By such means the chances of kyphosis or kyphoscoliosis and bow-legs are very much lessened.

The far reaching possibilities of organotherapy have tempted several observers to try the extract of the suprarenal and thyroid glands respectively. From Heubner's clinic, in Berlin, we find Stöltzner stating that on the whole a marked degree of improvement follows the use of the suprarenal extract. Heubner, on the other hand, found thyroid gland to act fairly well, but was not enthusiastic about its effect.

Later observers have not corroborated their observations as to the beneficial results arising from their use, and this method of treatment is still in its experimental stage.

No branch of treatment in pediatrics is more important than prophylaxis, and it is only by such intelligent means that we can ever hope to reduce the number of rachitic patients.

*THE THERAPY OF THE DUCTLESS GLANDS.**

By M. SHELLENBERG, M,D., Philadelphia.

The so-called ductless glands, whose secretions have been used as remedial agents, are the thyroid body, the suprarenal capsule, the thymus gland and the spleen.

The Secretion of the Thyroid Body.—Myxedema, as first described by Ord, exhibits increasing weakness associated with swelling of the body, enlargement and thickening of the skin, mucoid exudation into the subcellular tissue, and a very extraordinary slowing of all functions. The appetite becomes feeble, the movements are slowed, the temperature falls to a subnormal range, the patient's intellection is slow; as the disease advances the slowing of function becomes more marked until the subject falls into complete apathy, with very much lowered temperature and a failure of all activities. This condition attracted the attention of Kocher, of Bern, who found that the excision of the thyroid body in cases of goitre was followed by the gradual appearance of typical myxedema; he subsequently determined, however, that the myxedematous symptoms did not occur if only a portion of the gland was removed, proving that the absence of the thyroid body produces general widespread disturbance of nutrition. Horsley, of London, stimulated by the observations of Kocher, removed the thyroid gland from monkeys, and found that the result was the production of symptoms like those of myxedema—apathy, lowering of temperature, exudation of mucin into the subcellular tissues, tetanoid symptoms, and finally death from progressive loss of all functional power. The experiments of Horsley suggested to Murray the use of the thyroid gland in the treatment of myxedema.

According to the definition of Wood, *thyroidin* is a proteid body, containing a notable percentage of iodine, which was discovered by Baumann in the thyroid gland. The assertion of Baumann that thyroidin is the active principle of the gland has been confirmed by Roos, Hennig, Treubel, Ewall, Levy and others, so that its remedial activity seems to be reasonably established.

By the work of other observers it would seem that thyroidin is the chief active principle of the thyroid body, and that there is also another substance in the gland which has physiological activity.

A myxedematous condition of the body is undoubtedly the result of the absence from the blood of some principle or principles coming from the thyroid gland, which may be supplied artificially to the blood. The myxedematous patient who has been relieved by such artificial supply naturally will relapse when the supply is cut off, so that treatment of a myxedema consists in giving large amounts of the gland to remove the results which have been produced by the lack of the thyroid principle, followed by the stage of convalesence in which small doses should be administered continually to prevent the

*Reprinted from the *Medical Times*, Mar., 1902.

return of the myxedemic symptoms. Thyroid extract has been tried in insanity, especially in melancholia, with stupor, climacteric insanity and incipient dementia. The clinical reports are as yet uncertain in their statements of results, but are sufficiently favorable to warrant further investigation.

Thyroidin has been tried in old syphilitic ulcerations, in psoriasis and in various skin disorders, especially psoriasis, but with small success. In simple goitre. before degeneration has occurred, thyroid treatment often brings about destruction and absorption of the overgrown gland, The extract has been used with asserted excellent results in bringing about the absorption of large contracting cicatricial masses which resembled true keloid. It is fairly successful in obesity attended with anemia.

The occurrence of symptoms of thyroidism should be the danger signal for the lessening or withdrawal of the dose. In exophthalmic goitre, of course, the extract is contraindicated, as the probable explanation of this disease is an overabundance of the thyroid principles in the system. In those cases in which it has been tried it has very distinctly aggravated the conditions.

The thyroid itself is to be administered raw or very slightly boiled, to the amount of quarter to half of the sheep gland daily. The glycerin extract or the dried and powdered gland is, however, thoroughly efficient and is preferable. Start with a grain of the dried gland three times a day, increasing the dose until fifteen or twenty grains a day are given, or until there appears some nervousness, shortness of breath, rapid pulse or other physiological symptoms.

The thymus gland has been tried in the treatment of exophthalmic goitre. The reports are not encouraging. In a recent elaborate paper upon the subject, Mackenzie comes to the conclusion that the thymus gland has no specific action on the three cardinal symptoms of Graves' disease.

Suprarenal Extract.—Addison's disease has never been satisfactorily explained clinically. It exhibits a progressive asthenia, a peculiar bronzing of the skin, anemia and loss of digesting power, with excessive vomiting, probably from some destructive disease of the suprarenal capsules. The suprarenal capsules contains a toxic principle. It has been established that the poison chiefly resides in the medulla; that its activity is not destroyed by boiling unless the boiling be too long continued, but it is killed by alkalies, although unaffected by weak acids or the gastric juice; that it dializes readily, and it is soluble in cold water, glycerin and dilute alcohol; that drying at a moderate temperature does not affect its activity, though this is destroyed at a temperature of 110° C. Potassium permanganate destroys this principle, which is soluble without change in the arterial blood. There is considerable proof that this extract is valuable in the treatment of Addison's disease. If the disease is cancerous or tubercular, even supplying artificially to the system an active principle prepared by those bodies will not, of course, stop the local disease. The proper dose cannot be considered as settled, but it is not large. Oliver and Schafer found that 1.0037 gram of the dried extract, equal to about 0.015 gram of fresh gland, would produce a maximum of the arterial pressure in a dog weighing ten kilograms. A glycerin extract (gr. xl of gland to f ℥), in doses of ten to fifteen minims given hypodermically once a day is often of good effect. It is necessary to know that well-cleaned capsules are used in making the extract. When convalescence has been obtained in Addison's disease it is essential to continue the remedy in minute doses to keep the advantage obtained.

As yet there is no clinical evidence that the pituitary body is of value, for its functions are still almost unknown, but there seems to be some relation between it and the suprarenal capsule, in so far at least that its extract produced a rise of blood-

pressure, largely the outcome of contrac tion of the arterioles.

In such diseases as myxedema, cretinism, etc., the spleen is frequently enlarged, which suggests that there is some relation between this organ and the thyroid body. Oliver and Schafer injected the extract intravenously in the dog, producing a fall, followed by a marked rise, in the arterial pressure. The splenic extract used by H. C. Wood in various cases of exophthalmic goitre has two practical difficulties attending its administration. If it be given by the mouth in sufficiently large doses to produce distinct effect it is very apt to cause nausea and sick stomach. If it be given hypodermically it frequently causes local abscesses. In dispensary cases its employment has sometimes been followed by distinct amelioration, but in a large majority of cases has not achieved good results. In such cases, however, it is always impossible to know whether a disagreeable, more or less repulsive medicine is taken regularly or not. In one hospital case the patient greatly improved, and went home claiming complete restoration to health. Wood reports that "in one very bad case in private practice, with extremely violent action of the heart, very pronounced exophthalmus and great enlargement of the thyroid body, a teasponful of the glycerin extract caused on three occasions violent gastric distress, with pains radiating through the upper abdomen, lasting some hours and followed by continuing loss of appetite. Ten minims were then given hypodermically twice a day, although they produced so much local irritation that their administration had to be stopped every little while for a day or two They were used with these interruptions for six months. Then ten drops of the spleen extract were given three times a day for many months longer. The result has been complete disappearance of the thyroid, almost complete relief of the nervousness and breathlessness, though some degree of exophthalmus remains, and the heart, though comparatively very quiet, is still irritable. Before treatment the patient could scarcely walk a few steps in the street; now she can walk a long distance, provided the pace be not too brisk. In thirty-five years of practice Wood states that he has never seen in any case of exophthalmic goitre so near an approach to cure as that obtained in the two cases just narrated, and whatever good has hitherto been achieved has been the result almost solely of prolonged rest and of climatic treatment, especially of residence at the seashore." It seems to Wood, therefore, that there is at present sufficient evidence to call for a thorough trial of the splenic treatment.

Toxins and Antitoxins.—The antitoxins which are animal substances whose value as remedial agents is now acknowledged are the products of bacteriological growth in the animal organism. It is impossible in a paper of this sort to give fully the history of the development of these substances, of their physiological activity and of their value in the treatment of disease. We will mention the more important remedies, with an estimate of their value and method of administration.

Many pathogenic germs are now known to create in the animal organism two albuminous substances capable of violently affecting nutrition. To one of these has been given the name "toxin," to the other that of "antitoxin." The toxin is the substance produced by the bacteria beneficial to the bacteria themselves, whilst the antitoxin, similarly produced, is hostile to them. The body is a battlefield of infectious diseases between the toxins and the human organisms, helped by antitoxins. The toxin has a double action. The diphtheritic bacillus in the throat forms a poison which attacks the immediately surrounding tissue, and so weakens it that the bacterium is capable of overcoming the natural resistance of the part. Later, the toxin being absorbed into the blood, it affects the general system and produces the constitutional symptoms and the widespread lesions of diphtheria. How the

antitoxin destroys the bacterium is largely a matter of theory. By some it is thought to act chemically upon the toxin, but the present evidence renders this improbable. The most plausible explanation according to Wood is that the antitoxin in some way so affects the protoplasm that the latter is able to resist the toxin. If antitoxin be given to an animal suffering from infectous disease due to local lodgment of a pathogenic germ, the first evidence of its beneficial action is the failure of the bacteria to grow, though they are not destroyed.

Ten years ago the world was aroused by the reported discovery by Koch of a way of curing phthisis. The subject had not then been worked out far enough for any one to comprehend clearly what this so-called tuberculin might do in tuberculosis, but to thoughtful minds it was apparent from the beginning that tuberculin could not cure tuberculosis if it acted as Koch reported. Professor Koch claimed that tuberculin acting in conjunction with the bacillus so increased its local action that the tissue surrounding the tubercle rapidly softened and was cast off with the tubercles. With our present knowledge of the whole subject, it is clear, as we stated in a previous paper, the tuberculin of Koch was simply an impure toxin. When the tubercle bacillus grows in the human lung the toxin which it forms slowly kills the tissues and produces ulceration; whilst doing this it also finds its way into the blood and causes the so-called hectic fever and the other constitutional symptoms of chronic tuberculosis. When Koch's tuberculin is injected into the blood in a certain small quantity, it produces no febrile reaction in the normal individual because there is not enough of it present in the system. The important point is, however, that the injection of such a toxin, even if it should kill every tubercle bacillus, will not cure the patient, for the tuberculin does not affect the essential weakness of the consumptive individual with the lack of resistance to the tubercle bacillus. It does not even stop the reinfection of the loosed tubercle; on the contrary, the setting free of the tubercle bacilli favors their entrance into the lymphatics and the blood vessels, and consequent dissemination throughout the body, so that in actual practice a general tuberculosis may often immediately follow upon the treatment of a local tuberculosis by injection of tuberculin.

The various antitoxins have been used in the majority of the germ diseases, but their usefulness as yet seems to be established principally in diphtheria and possibly in erysipelas.

We know now that tetanus has been cured in the laboratory with certainty with its appropriate antitoxin, but it is known definitely how much tetanus toxin has been given to the animal, and the antitoxin is administered just before or immediately with the toxin; whereas, in human tetanus, it is different. The patient is generally saturated with the toxin of the disease for hours or days before the antitoxin can be given. Very rarely in these human cases can the inoculation be followed with the toxin, but with the bacillus, which takes usually from three to eight days before it is sufficiently developed to produce enough toxin to cause an outbreak of symptoms, so that there may be complete general saturation of the system when the apparent disease first appears. The assertion of Cattani, that the tetanus antitoxin is of little or no use when the symptoms are sufficiently severe to end in death within three days is probably correct. In subacute and chronic tetanus antitoxin has from time to time seemed to save life.

So firmly is the diphtheria antitoxin established that one observer of it states that the value of antitoxin in diphtheria appears no more doubtful than that of quinine in malaria. The antitoxin should be used early, as it acts chiefly by arresting the growth of the bacillus. If given late in the disorder it may arrest the further growth of the germ, but the patient

dies nevertheless, because the tissues are already poisoned with the toxin, or, perchance, have already undergone an irreparable degeneration. Again, after the first day a general septic infection is apt to appear.

It is self-evident that the early use of the antitoxiu in diphtheria is important. It is a proud triumph to be able to state that there are well-observed cases of diphtheria on record in which antitoxin, administered during the first few hours after the outbreak of the disease, has failed to cure. But, on the contrary, statistics show that if the injection be postponed to the fifth day, the mortality rate is greatly reduced by the use of antitoxin. We must remember that our modern municipal scientific methods may become causes of death under these circumstances. "A case of suspected diphtheria presents itself to the practitioner; already the child has been sick, it may be, one or two days. A culture-tube is prepared, sent to the municipal laboratory, examined, and the result sent back to the practitioner, who then goes to see the patient. It is very fortunate if not more than one day is lost in this way, and the loss of those hours may well mean the loss of life, for the time has elapsed during which the anti toxin used in moderate quantity does harm when the child has not diphtheria." *When any case presents the clinical aspect of diphtheria the antitoxin should be injected at once.* Of course it is sensible to say that the use of antitoxin in any case of diphtheria must not be allowed to interfere with the accustomed local and general treatment.

Cases in which a fatal result in diphtheria was fairly attributed to pure antitoxin are rare, although it may produce disagreeable symptoms. Among the most characteristic of these is a rash of variable character; sometimes it is scarlatinoid, sometimes rubeoloid, sometimes it is widespread erythema. The skin eruption may be accompanied by swelling of the joints and by fever, but seems to subside without serious results. Recently there has been an outbreak of tetanus in St. Louis following the injection of diphtheria antitoxin. It is too early to state the cause; at the moment it may be said to be due to some lack of thorough precaution.

Probably every pathogenic germ has its antitoxin, so the time may come when every germ disease will be treated with its appropriate antitoxin. The only other antitoxin used to any considerable extent with success is that of erysipelas, the "streptococcus antitoxin." Clinical experience proves that the streptococcus antitoxins now in the market are active in all forms of streptococcus diseases; at least, there are as yet no means of distinguishing between the different forms of streptococci poisoning. In erysipelas and allied septicemia the remedy may be tried with fair hope of success. In puerperal septicemia Charpentier has reported 40 cases in which the remedy has been used, with a mortality of 35 $^{6}/_{10}$ per cent.; Tissier, 13 cases, with a mortality of about 46 per cent. The latest collection of cases is that of Shober, 23 English cases, with 4 deaths, a mortality of 19 per cent. In a recent discussion on this subject, based upon the report of a number of cases, the result arrived at was that when the injections of serum were begun early in pure streptococci cases they were of value, but that in cases of puerperal septicemia they were often of little effect, because the sepsis was not due to streptococci. In advanced diphtheria, in scarlet fever and in various cases with secondary streptococcus infections the antitoxin may be of service. There is no genarally recognized unit of streptococcus antitoxin, and therefore cannot be any definite dosage. At present the practitioner should follow the directions given with the antitoxin serum by the firm manufacturing the preparation.

Reports on other antotoxins are appearing every few days, and undoubtedly in five years' time we will see great changes and advances in this division of medicine.

*TREATMENT OF ANGINA PECTORIS.**

By Beverley Robinson, M.D., of New York.

True angina pectoris is granted to be a disease of very rare occurrence. On the other hand, pseudo-angina and cardiac asthma are not at all seldom met with. Almost without exception, organic changes of the heart-muscle or of the aortic orifices accompany genuine angina, while the false form is as often of neurotic origin.

The pain of true angina is very characteristic, being marked by its great intensity and a feeling of imminent dissolution. The sufferer suddenly assumes a rigid, fixed attitude, fearful of moving, agonized by a sensation of impending death. He scarcely dares to breathe, unlike the victim of cardiac asthma, who makes frantic efforts to satisfy his air-hunger. The pain of angina is perfectly distinctive, unlike any other kind. Its location over the precordial region is by no means a constant feature, and it often radiates towards the arms and hands, or even seems to originate in the wrist, in exceptional cases.

Frequently an attack of angina is brought to a close by a sudden explosion of gas from the stomach, hence the belief in flatulent dyspepsia as the immediate cause of anginal seizures. The duration of an attack varies from several seconds to as many minutes, seldom longer. Occasionally abortive seizures are encountered. Among the causes which precipitate the attack, exertion is a notable one. A brisk, hurried walk, or some fatiguing effort may bring on the disorder. Flatulence, dyspepsia, a loaded rectum are other potent exciting factors, as is also the influence of cold. Therefore, the sufferer should keep his body warmly clad, taking especial care to have warm feet.

Bearing in mind the frequency of digestive disturbances as precursors of anginal seizures, the patient ought to avoid late meals, too abundant dinners, highly seasoned foods, sauces, condiments, etc. A life conforming to the simple rules of hygiene is the best prophylactic.

When the disorder can be traced to some other disease, causal treatment is indicated. Otherwise, it is empirical and symptomatic. The bitter tonics, hops, calumba, chiretta, etc., are often appropriate. When aortic disease is present, arsenic, potassium iodide, and nux vomica may be useful if the arterial tension is not too high. In many instances the sodium iodide is preferable to the potassium, since it affects the heart less strongly. For both, milk is the best vehicle.

The nitrites are best not used between the attacks. When a seizure has supervened, amyl nitrite and nitroglycerin are very efficient in relieving pain by dilating the peripheral arteries. The former is prompt, the latter more lasting in action. Both are safe drugs, as is also the sweet spirit of nitre, while sodium nitrite may produce alarming symptoms.

However, the nitrites are not indifferent remedies, and the patient should be duly warned of the consequences of abuse. It seems as if their injudicious employmet sometimes shortens life. The iodides are better suited for prolonged administration.

Cases are encountered, however, which refuse to be relieved by either nitroglycerin or amyl nitrite. A mustard leaf or a hot-water bag may then be applied over the heart, but if they fail, morphine must be given hypodermically. In some instances, inhalations of chloroform are the only hope of relief, but they are a dangerous resource.

For marked cardiac failure, a hypodermic injection of ether or brandy (½ to 1 dr.) may be administered. Inhalations of oxygen are also valuable in this emergency. After the acute seizure is over, rest in bed is desirable for some time.

Physical therapy, as the Oertel system, may be useful, but should be employed with great caution and discrimination.

* *American Journal of Med. Sciences*, cxxiii, No. 2—*Merck's Archives*, April, 1902.

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Editorial.

WE ARE PLEASED to present as our leading article in this issue a timely contribution by Drs. WM. S. GOTTHEIL and MILTON W. FRANKLIN, on actino-therapy. The Finsen treatment in the past has been limited practically to lupus vulgaris, in which condition brilliant results were obtained. That actino-therapy has a far wider range of usefulness and possibility, this and other contributions of the authors, on the same subject, will amply demonstrate. In this issue the *rationale* of the treatment is discussed at some length, and the ultraviolent end of the spectrum, the chemical end as it were, is shown to be the force producing the good results. The authors have also shown that the ordinary actinic light penetrates the entire thickness of the human body, thus rendering all the internal organs accessible to its action, for what good, future experimentation will have to decide. One great advantage claimed for this method over that of the X-ray, is the non-occurrence of deep, sloughing ulcerations and areas of sclerosis.

It is to be hoped that the prophecy of the writers, that a "simple, effective, and comparatively inexpensive" actino-therapeutic apparatus may be constructed for general use, will come true, so that this valuable therapeutic agent may reach a greater number of sufferers.

RICKETS, A DISEASE SO common in all large cities, especially in dispensary practice, is well worth the attention and study of all practitioners. In an article by Dr. JACOB SOBEL, published in this issue, a plea is made for a closer observance of prophylaxis, for "only by such intelligent means can we ever hope to reduce the number of rachitic patients." Attention is furthermore called to the importance of an early recognition of the disease, to the value of hygiene and diet, and to the secondary importance of medicinal therapy.

* * *

THE TREATMENT OF DISEASE by antitoxin and organo-therapy has been one of the greatest medical achievements of modern times. Chemical, bacteriological, physiological, and clinical experimentations are still being conducted very assiduously and rapid advances may be predicted. These subjects are presented in a careful manner by Dr. M. SCHELLENBERG, in a paper on the "Therapy of the Ductless Glands."

* * *

THE PICTURE OF AN attack of true angina pectoris leaves an impression second only to the marked relief so frequently observed after the inhalation of an amyl nitrite pearl. We quote in this issue a compact plan of treatment outlined by Dr. BEVERLY ROBINSON, and embracing various methods required to meet the exigencies of all phases of the affection.

* * *

With this issue the AMERICAN THERAPIST completes its tenth year of publication, continuous and uninterrupted, unchanged in form and make-up, and consistently true from the first to the one-hundred and twentieth issue to its policy of independence. We have followed a high ideal, and while devotion to this principle has brought little recognition and no pecuniary returns, we feel satisfied that we have accomplished some good, have interested and benefited some readers, and have had a lot of gratification in the work.

The outlook for a better, a more interesting and a generally improved journal henceforth is good. May our old readers continue with us, and new ones increase in number, for in many readers lies the best incentive to better work.

THERAPEUTIC NOTES.

In organic heart disease where compensation has been established, stomachics are often more useful than cardiac tonics or stimulants.

Salicylic acid, emplastrum diachylon, emplastrum saponis and vaseline, in the proportions of 1, 5, 10, 10, and 4, will cure furunculosis.

In pruritus of the vulva and scrotum an ointment composed of calomel, menthol and carbolic acid will afford great relief.

For the fetor following an incomplete abortion, half an ounce of formalin in a quart of water acts as a deodorizer and disinfectant.

Sulphur ointment applied just within the anus is said to destroy pin worms.

Carbonate of creosote, or creosotal, in seven minim doses every three hours is considered almost a specific for pneumonia by Van Zandt, Smith, Thomson and Weber.

In haemophilia, purpura hemorrhagic diathesis, etc., suprarenal extract with calcium chloride will assist in controlling the bleeding.

In broncho-pneumonia of the acute congestive type, most common in infants, a hot mustard pack continued for fifteen minutes will relieve the urgent symptoms.

Heroin and terpine hydrate is an excellent combination for winter cough.

In a rigid *os uteri* chloral acts as a prompt relaxant and at the same time overcomes the nervous irritability present with such a condition.

In subacute ileo-colitis of children three grains of tannigen given three times daily often proves useful.

Current Literature.

The Medicinal Treatment of Ascites.—In a clinical lecture by A. R. Leonard, published in the *Medical Herald* of March, 1902, the doctor says, it is not proper to aspirate every case of ascites, and we must first postpone aspirating in any case until remedial measures are first employed, thereby often avoiding the use of aspiration. Then use remedial measures to control the fluid. The remedies employed are those which simply carry off the fluid; those which act upon the heart and upon the kidneys and skin. Those remedies which act upon the skin are not of much service. Remedies such as hot air baths and jaborandi are indicated for inflammations which are local or due to other causes. When the ascites is due to other causes, as to the liver or to peritonitis or some other process, such measures are not of much use. Remedies which act upon the heart, and those which act upon the kidneys are of advantage; also those which act upon the bowels. Those drugs which keep up the strength of the heart, and stimulate its action, and those which have a combining effect, as digitalis, strophanthus and caffein, are good heart remedies, to reduce the fluid of ascites. They alone may be sufficient. There may be an indication that the kidneys are not active, and then we need a little more diaphoretic action than the drugs I have mentioned, as caffein; the alkalies, salts of potassium, citrate or the bitrate, are good diuretics; cream of tartar lemonade acts well as a diuretic, and probably a mild laxative, too. It certainly increases the action of the kidneys. Another is small doses of calomel; others are those which apparently stimulate the activity of the kidneys directly, as oleoresin of copaiba, which is an excellent diuretic; ten minims, four times daily, will produce an increased flow of urine. Then another diuretic is the Canadian hemp, in the form of the tincture, which is used a great deal in different parts of

the country, by very able physicians, for its diuretic property and its remedial effect upon ascites. In the treatment of this condition we have to be careful of the dosage. Begin with five minims, four times daily; then 10, then 20 minims; in the last named dose, it acts as an intestinal irritant, it purges; moderate amount is all right, when too much is given, bad results are apt to follow, causing oolitis, which is certainly not an advantage in cirrhosis of the liver. These diuretics are the best that I know of: digitalis, ¼ gr., calomel, ⅛ to 1¼ grs. in blue mass, squill, ¼ gr. is an excellent combination. The infusion of scoparius is a great diuretic, and is given sometimes with the salts of potassium, and acts very well for a time. It is known as broom tea, it is a home preparation and people have been cured of ascites by its use when doctors had given them up. Purgatives should be given judiciously; the tendency is to constipation in these cases; but while you see the morbid process going on in the liver is such as to reduce the amount you do not want to use such measures as will reduce it further. Use possibly sodium or the salts of magnesia, so as to move the bowels two or three times in the 24 hours.

An important clinical point is, do not think that because there is tympany, the liver dulness is abolished. This is a dictum frequently laid down by clinicians. If you find liver dulness abolished, that is a sign of perforation.

Treament of Cholelithiasis.—Carl Weidner (*The American Practitioner and News*, March 1, 1902) in an article and discussion on cholelithiasis states that the indications for treatment are several. First is to relieve the attack and prevent others, if possible, by proper medical, dietetic, and surgical means, and second, to treat the sequelæ and complications. If seen during the early part of the attack, of course, the indication is to relieve the pain. Morphine, or a combination of atropine, is most useful. One quarter to one-half grain morphine may be given, repeated if necessary, bearing in mind that we may have the accumulative effect of this drug after sudden cessation of pain. Various other anodynes may be used for the relief of pain and spasm. Hot, wet applications over the abdomen lessens vascular tension and muscular spasms. With the view of lessening the catarrh of the duodenum as well as the bile ducts, which may cause some slight obstruction, the alkaline waters have been used. Bicarbonate or phosphate of soda in hot water are excellent. Salicylate of soda is a favorite remedy with many. Olive oil in large doses, as much as half a pint or even a pint, given by the mouth, has been used. We can not say that it can do any more good than to stimulate intestinal peristalsis and act as a laxative. Cold water injections into the rectum have been praised by Mosler and Krull. The ideal treatment, of course, would consist in dissolving the stones, but solvents for gall stones we do not possess at the present time. The mineral waters, combined with various alkalies, have been used for a long time; the most prominent of these is Carlsbad water or Carlsbad salts. The latter is best given in one or two drachm doses in a pint or a quart of hot water on an empty stomach.

Winkler has reported good results from the sulphur water of Bad Neundorf, combined with the sulphur bath. It increases the fluidity and quantity of the bile, and thereby increases pressure in the gall-bladder. During an attack we may use the general warm bath with view of relaxing the tissues and favoring expulsion of the stone. The diet should be plain, largely vegetables; simple broths, buttermilk, or skimmed milk, are excellent. Alcoholic and malted drinks are to be avoided. Eggs in large quantity should be discouraged, because they contain a large percentage of cholesterin, about one half of one per cent. Bread and other substances possessing this agent also should be limited in quantity.

The treatment for relief of the disease itself we must acknowledge to-day, just as we have done for many years in regurd to appendicitis, must be referred to the surgeon. Gall-stone disease has practically become a surgical disease, and this is one of the most important points to recognize. We must insist also that the operation in most instances must be done early if it shall be successful, in order to avoid the deleterious effects and complications.

I neglected to mention chloroform. Certainly this is an excellent remedy, and I have given it in the treatment of gall stones frequently. So far as I know we have no solvent of gall stones within the body. When I was a student one of my teachers spoke highly of succinate of soda and stated that it seemed to have a solvent effect. I do not believe it acts any more as solvent than other alkalies. Various remedies may be administered with the view of preventing the formation of stones. Most prominent ones are the alkaline salts; they liquefy mucus, act as laxatives, clearing out the bowel, stimulating muscular contraction of the gall bladder and ducts, which is of undoubted benefit in cases due to catarrhal inflammation of the duodenum. Gall stones that cause pain indicate an operation. In obstructive disease where a stone has been pushed down into the ducts operation is positively indicated, and it is a matter of necessity if we want to prevent the worse after-effects, general inflammation of the biliary system, cholemia, pyemia, and septic conditions to which most of our patients succumb.

Various authors have laid down certain lines and indications for surgical treatment. In cases where there is a stone in the duct, in a patient where there seems to be little hope on account of the advanced stage of the disease, it has been proposed not to subject the patient to the severe operation of opening the duct, but simply to open the gall-bladder and drain it, and at a later period, when the patient has sufficiently improved, to open the duct.

The Hypodermatic Injection of Quinine. —Dr. Ferguson (*British Med. Journal*, Feb. 22, 1902) states that the superiority of the subcutaneous injection of quinine over its administration by the mouth in certain cases of malaria has long been recognized, although many causes have intervened to prevent the universal adoption of this method. Among these objections may be mentioned the difficulty of dissolving the ordinary sulphate of quinine without adding so much acid as to cause the solution to become very irritating and painful, and, in hot climates, the fear, which seems a very real fear in some places, of causing tetanus. Much would seem to depend upon the preparation employed, the salt usually recommended being the acid hydrochloride, which is very soluble. However, he endorses the recommendation of the bi- or acid hydrobromate of quinine, as being far superior to other preparations for this purpose. The examples given by him are very striking, half a dozen subcutaneous injections having been sufficient to cure many cases of long standing which had already been subjected to treatment by quinine in other forms without effect. In explaining the superior efficacy of hypodermic injections as compared with administration by the mouth, he refers to the rapid excretion of the drug by way of the kidneys as being the cause of the apparent inactivity of quinine in some cases. The excretion of quinine through the kidneys begins a few minutes after a dose has been given, and it is this fact that explains the superior results from its subcutaneous use. When slowly absorbed through disordered stomach and intestinal membranes it is excreted nearly as fast as it is absorbed and never reaches in the blood a strength sufficient to destroy the malaria plasmodia. On the other hand, when subcutaneously used, its maximum and effective strength is probably reached within half an hour. As to method, he injects subcutaneously 3 grs. of quinine bi-hydrobromate dissolved in 20 minims of pure warm water. He first

injects it under the skin of the upper arm, then under that of the thighs, then under the skin of the abdomen, or at the top of the chest or between the scapulæ. Six injections on alternate days are usually required in a serious case. He keeps a syringe for the purpose, and uses it for nothing else, disinfecting it and the patient's skin with strong carbolic lotion, carefully disinfecting his own hands, and sterilising the needle in the flame of a spirit lamp. The solution of quinine is sterilised when first made, but he has not himself boiled it each time before using, although he now recommends that this should be done. With such precautions, he is convinced that there need be no fear of tetanus, and further he is convinced that there are few or no cases of malarial fever that will resist six subcutaneous injections of 3 grains each of quinine bi-hydrobromate.—*The Hospital*, Mar. 1, 1902.

Scarlet Fever.—F. D. Millard, in a paper in *Pediatrics*, (*The American Practitioner and News*, March 15, 1902), says that in mild cases the treatment consists of rest in bed, liquid diet, plenty of water to allay thirst and promote elimination of the poison, and a mild cathartic, such as calomel. The free use of milk, buttermilk, water, and mineral waters lessens the danger of post-scarlatinal nephritis. For a mild diuretic, potassium acetate answers well and may be aided by the citrate or bicarbonate of potash or sweet spirits of nitre. The nose and throat should be cleaned by spray or syringe with a mild antiseptic, such as hydrogen peroxide. A gargle may lessen the danger of ear complications, and in addition the sore throat is improved by a teaspoonful every three hours of the following:

R	Tinct. ferri chlorid....	gm.	8.0 (℥ij);
	Glycerin }		
	Syr. symplicis }	āā....	30.0 (℥j);
	Aquæ, q. s. ad.....		90.0 (℥iij).

The temperature may be controlled by lukewarm or cold sponging, or, if the patient is nervous and restless, by acetanilid, phenacetin, or sodium salicylate. A weak heart may require strychnine, digitalis, or alcohol. If the kidneys become involved, give warm baths, saline cathartics, milk diet, and water with liquor potass. citrat. Keep up counter-irritation over kidneys with poultices and mustard, and promote diaphoresis by hot pack or vapor bath. Convulsions may be controlled by morphine, atropine, chloral hydrate, potassium bromide or chloroform. Urgent symptoms may demand hot mustard baths, with cold affusions or ice to the head, or even venesection. Morphine is the best remedy to control the pain of scarlatinal rheumatism, but sodium salicylate should be given, and the joint wrapped in a glycerin ointment.

Saloquinine.—Saloquinine is the salicylic acid ester of quinine, having the formula $C_6H_4.OH.CO.O.C_{20}H_{23}$. It occurs as a white powder, having a melting point of 138 degrees C., and is completely devoid of any bitter taste. It is insoluble in water, but readily soluble in chloroform and warm alcohol, and disolves with difficulty in ether and cold alcohol. According to Overlach (*Centralblatt für innere Medicin*, No. 33, 1901) it is more strongly germicidal than quinine, weaker solutions being required to arrest fermentation. and he has also found it to exhibit a pronounced antipyretic action. It never produced any of the by-effects of quinine, such as gastric irritation, tinnitus, deafness, or headache. It was found of special value in typhoid fever, in which it reduced the temperature and also had a beneficial effect upon the patient's general condition. In neuralgias, particularly those of a malarial type, it gave excellent results.

These observations have been confirmed in a recent article by Dr. Tauszk (*Klin. Therap. Wochenschrift*, No. 1, 1902) who comments particularly upon the antineuralgic properties of the drug. The dose is slightly larger than that of quinine, ranging from 10 to 30 grains.—*Pacific Drug Review*, April, 1902.

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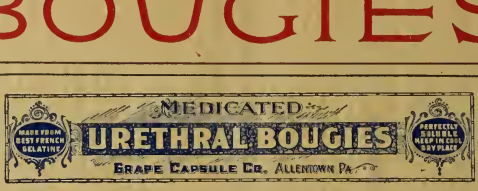
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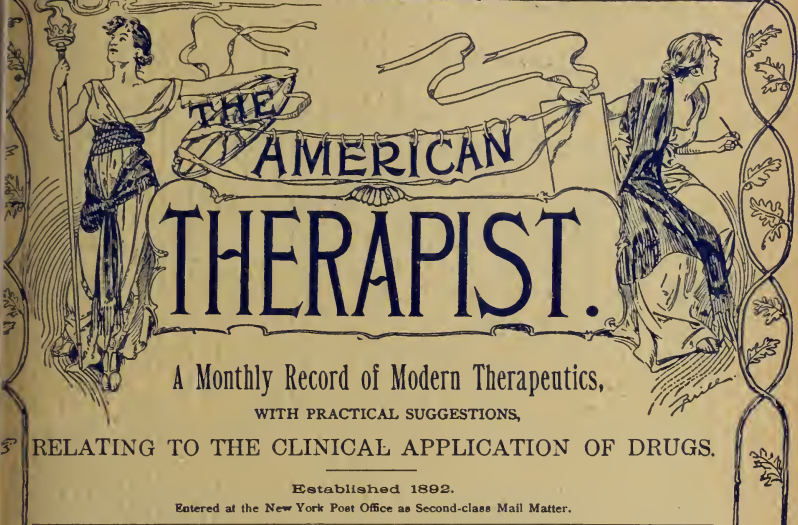
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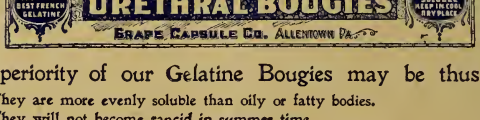
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Vol. X. APRIL, 1902. No. 10.



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RELATING TO THE CLINICAL APPLICATION OF DRUGS.

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*ON THE EXTERNAL AND INTERNAL EMPLOYMENT OF ARGENTAMINE.**

By Dr. Bergel, of Inowraxlaw.

I have used Argentamine for over two years both externally and internally in numerous cases, and have found that it not only almost always is an efficient substitute for the nitrate of silver, but in many cases superior to it. Its field is that of all affections of the mucous membranes in which astringent, antiseptic and antibacterial action is required. Of course the stage of disease and the amount of inflammation present must be taken into account. I have treated inflammations of the conjunctiva, pharynx, stomach and intestines, urethra, bladder and vagina with solutions of various strengths; and, without going into details, will report my opinions as to its field and efficacy in comparison with similar preparations, the most suitable strengths in which to use it, etc.

In gonorrhœa the dosage was a varying one in accordance with the symptoms and stage of the disease. The method of employment was also various, being some times ordinary injections, some times by irrigation, and some times by instillation by means of the Guyon syringe. I started on the basis of a 10 per cent. Argentamine, corresponding to a 1 per cent. silver nitrate solution. For injections I found 1:400 to 1:200 solutions most suitable. In acute cases I began with the weaker strength; and my results show that it best filled the indications as to efficacy and absence of iritant effect. I gradually increased the strength of the injection, and found that 1:300 was well borne by almost all patients without subjective ill effects. Even 1:200 usually caused no irritation of any account. In some cases when this solution was allowed to act for some time, say ten minutes, there was moderate burning and slight increase of the discharge, phenomena that did not appear with the lesser strengths.

Upon the whole Argentamine seemed superior to the nitrate of silver in that it caused the inflammatory symptoms to disappear more rapidly, and the abundant secretion to diminish, became mucoid, and cease more quickly. As a rule the gonococci disappeared earlier.

The ordinary injections were done three or four times a day, being retained five to ten minutes in the urethra each time. In the more chronic cases, and especially in posterior urethritis, stronger solutions were employed; and when the affection was circumscribed in the latter location, instillations of 1:10 solutions were made with the Guyon syringe. In very many cases this concentration was well borne, and did not irritate. Twenty per cent. instillations, however, were found to be less suitable, and I should not advise their employment. The 10 per cent. concentration is equivalent to a 1 per cent. nitrate of silver solution, and is at least as efficacious, and perhaps more so, than a 2 per cent. solution of the older salts, and causes less irritation and trouble. In general the irrigation caused no irritation at all; and in the isolated cases in which they did, it was very slight in degree.

For urethral irrigation, and in gonorrhœal cystitis, after the termination of the acute symptoms, solutions of 1:1000 to 1:500 in distilled water were commonly employed. The irrigations were made once a day, and no disturbing by-effects, burning or dysuria, such as are commonly seen with the mildest applications, ever occurred. On the other hand, the therapeutic action of the drug was far superior to that of the older remedies. The results were very excellent, and sometimes brilliant. Combination of ordinary injections with the irrigations sometimes increased their curative effect. Irritation of that sensitive organ, the bladder, rarely occurred; and when it did, in delicate individuals, it was very slight. The method did excellent service in several cases of

* Abstract from *Therapeutische Monatsheft*, Berlin, July, 1901.

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At the Clinic of **Professor E. VON LEYDEN,** at Berlin, Creosotal has been used in a large number of cases of **phthisis pulmonum** with very good results. It agreed well with all the patients. It had a very favorable effect upon the night sweats and the fevers; and the cough and expectoration either disappeared entirely, or were markedly improved. The body weight increased in most cases.

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Betanaphtol-Bismuth is antiseptic as well as astringent, and is therefore far superior to the new tannin compounds recently introduced; for tannin is well known not to possess any bactericide action at all. Four or five 15-grain doses of Orphol will usually cure the very worst cases of diarrhœa; and in cholera infantum 2 to 5 grains administered every three or four hours act admirably.

Orphol is soothing to the irritated and inflamed intestinal mucous membrane, besides acting as a continuous disinfectant. It does away with the dangers of caustic or poisonous antiseptic substances, such as carbolic acid, naphtol, resorcin, the bichloride of mercury, etc., and the use of complicated and uncertain diarrhœa and cholera mixtures.

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Xeroform is the ideal substitute for iodoform, being an antiseptic, desiccating and deodorizing agent which is odorless, non-poisonous and non-irritating, with very powerful antibacterial properties. Professors Hueppe and Fasano, Dr. Reynders, and others, have found it to be a very effectual intestinal antiseptic in cholera, intestinal tuberculosis, etc.; but its chief application is as an external antiseptic in the place of iodoform. Xeroform has been employed by Drs. Heuss, Cumston, Grünfeld, Beyer, Metall, Paschkis, and many other observers, in the most varied surgical affections; for operative procedures, amputations, enucleations, and cancer operations; for suppurative bursitis, lymphadenitis, and alveolar periostitis; for paronychias, deep abscesses, and suppurating buboes. In venereal diseases it has been extensively employed in the treatment of chancroid; and in dermatology for impetigo, furunculosis, sycosis, eczema and pruritus. It has also been successfully used in ophthalmic and gynæcological practice, and for insufflation into the nose and ear. Its fine pulverization enables the physician to cover a large surface with a very small quantity of the drug.

Literature furnished on application.

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prostatic disease with chronic vesical catarrh. Irrigation was naturally not employed in fresh cystitis; but in recent infectious urethritis they could be used without any trouble at all. In fact in these cases improvement or cure was more rapidly effected than with the ordinary injections. Argentamine was employed with good results in a few cases of gonorrhœal vaginitis and cervicitis. In the former irrigations of Argentamine 1:1000 worked very satisfactorily; in the latter, applications of 5 and 10 per cent. strengths were made with good results and without causing much or any other by-effects.

In pharyngeal diseases Argentamine was employed where silver nitrate would formerly have been used, being always found its equivalent, and in many cases its superior. This latter seemed evident in a case of syphilitic pharyngitis amongst others. Five to ten per cent. solutions were used, and were somewhat less unpleasant to the patient than nitrate solutions would have been.

In the ophthalmological field I employed Argentamine in all the suppurative conjunctival diseases in the form of 1 to 2 per cent. instillations three or four times daily, or as a brush application once or twice a day in 5 to 7 per cent. solution. In the great majority of cases I was well pleased with its action. The nitrate of silver does very well in many of these cases; but the drug possesses the advantage of being usable in relatively weaker concentrations to get the same effect, and the iritative symptoms and subjective difficulties caused by its employment were distinctly less. I administered it in suppurative conjunctival catarrhs, acute follicular catarrhs, acute trachoma, chronic suppurative trachoma and blenorrhœa neonatorum. In almost every case its action was at least equal to that of the lunar caustic; and in the acute follicular catarrhs and trachomas it seemed to influence the swelling and suppuration very favorably and quickly, and without unpleasant irritation. In gonorrhœal conjunctivitis of the new-born I had excellent results in some cases; in others I rather felt safer with the usual 2 per cent. nitrate solutions, and changed to them. Corneal affections, and more especially panus trachomatosus, were no contraindications to the employment of the Argentamine; on the contrary, they seemed to be favorably influenced by the applications.

The internal employment of Argentamine soon demonstrated to my satisfaction that there were no unpleasant by-effects connected with this use of the drug. The first case in which I used it per os was that of a phthisical colleague who suffered from attacks of diarrhœa which neither astringents, nor opium, nor combinations of the two could relieve for any length or time. I administered a ½ per cent. watery solution with a little glycerin, giving a tablespoonful every two or three hours. The result was visibly and extremely satisfactory. The six to eight daily diarrhœal stools speedily became reduced to two, the fæces became more consistent, and the appetite increased. There was no complaint of heartburn, colic, or any other unpleasant effects. I was loth, however, to attribute this brilliant result to the Argentamine alone, supposing that other factors unknown to me had probably been at work. I soon had chances, however, to convince myself of the therapeutic efficacy of the drug in other cases in adults, and more especially abundant opportunity to study its effects in the gastro-intestinal affections of childhood. I was, of course, slow to abandon the older and well-tried remedies, calomel, bismuth, etc., for a new preparation. But I reflected that the nitrate of silver still maintains a high place in the treatment of gastro-intestinal affections, and in many cases with justice; and my first result, and more especially the entire absence of any ill effects, encouraged me to overcome my hesitation. The results, whilst not always especially brilliant, were very satisfactory in the majority of instances;

the remedy being, of course, employed on certain special indications, which will be mentioned later. A very slight burning was the only by-effect noticed when the stronger solutions were employed; but this was only temporary, and occurred but in exceptional cases.

I employed Argentamine in enterocolitis after the first severe symptoms passed away, and, of course, in conjunction with a rigorous diet; in intestinal catarrh, in enteritis, in phthisical diarrhœa, and as an injection in catarrh of the large intestine. The dosage and concentration of the drug varied with the patient and the condition of the gastro intestinal mucous membrane. A teaspoonful to a tablespoonful was administered every two or three hours of a ½ to 1 per cent. solution, either plain or with glycerin. Often the 1 per cent. solution could be taken by the teaspoonful without trouble; in isolated instances it caused slight irritation. With the ¾ per cent. solution this never occurred; and even with the stronger one the symptoms were very slight and transitory. The therapeutic efficacy of the ½ to ¾ per cent. solutions were, however, quite equal to that of relatively more concentrated silver nitrate ones; indeed, in very many cases they were far superior, both as regards their astringent as well as their antibacterial effect.

In the gastro-intestinal catarrhs of children and adults an Argentamine solution of the above strengths could often be employed with effect when other remedies failed. For purely astringent effect, however, we possess other and more suitable drugs. Regulation of the diet, etc., seems in some cases to make all medication superfluous, or at least only accessory; but the direct influence of the Argentamine could often be plainly seen. The very best results were obtained in enteritis, probably on account of the union of astringent and antiseptic properties the remedy. In catarrhs of the large intestine repeated irrigations of Argentamine solutions of strengths of 1:500 to 1:1000 were made with favorable effects.



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On the sixth, all nausea and vomiting had ceased, his temperature was normal, the pain and tenderness disappeared, and the evacuations were reduced in quantity and frequency. The nurse was now ordered to carefully irrigate the bowel with a mild Thiersch solution once in 24 hours, and to continue the bovinine injections, increasing the quantity to two ozs.

On the 12th, the patient sat up in bed and asked to be allowed to try a little food. The nurse was ordered to give him a little blood pudding made of the bovinine. This he seemed to relish without any inconvenience.

On the 16th, outside of a slight discharge at intervals of about every three hours, and emaciation and weakness, the patient said he felt very well. The rectal washings were discontinued and the bovinine feedings changed to the following: Bovinine, 2 ozs.; milk, 3 ozs.; lime water, ½ oz. This to be employed every four hours. Internally, the bovinine was now increased to a tablespoonful every two hours in peptonized milk. From this time on his recovery was uninterrupted, and on July 29th he was discharged cured, having gained three pounds in weight.

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COMPLICATED ANÆMIA.

By T. J. Biggs, M.D.

Ruth K——, age 14, American, admitted November 14th. Diagnosis: Essential anæmia.

The patient had been sent to me by Dr. B——, who said that in spite of all treatments employed, his little patient had grown steadily worse, and the parents were well-nigh discouraged. Her condition was associated with menstrual disorders; a year previous she said her disposition seemed to change. She found she was becoming morose and despondent, at times hysterical, and suffered very much from melancholy. Her menstrual order was of the menorrhagic form; her complexion was pallid, waxy, skin puffy without œdema; she was easily fatigued upon the least exertion; the heart was irritable; there was shortness of breath, pulse full, but soft, and at times pulsations in the peripheral veins. There was a disgust for food, imperfect indigestion and occasional attacks of gastralgia. In the right apex there was a suspicious dullness, indicating a possible incipient phthisis. Examination of the blood showed a relative decrease in quality and quantity of the hæmaglobin, resulting in the blood being paler than normal. The red corpuscles were lighter in color and showed less tendency to form rouleaux; their character was changed, not being of uniform size, some normal, others small (microcytes), others unusually large (macrocytes), others irregularly shaped (poikilocytes). The number of corpuscles to a cubic millimetre was about 2,500,500. The white corpuscles were considerably increased in number. A few granular bodies were present, indicating degeneration of the white corpuscles.

The patient was put to bed, secretions

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regulated, and a half teaspoonful of bovinine was ordered every hour in peptonized milk.

On November 18 the bovinine was increased to a tablespoonful every two hours.

November 30 the bovinine was increased to a wineglassful every two hours, given in peptonized milk, alternating with old port wine. The patient at this time showed some improvement, felt stronger, slept better, digestion seemed excellent, bowels regular, and she slept throughout the night quietly.

December 10 microscopic examination of the blood showed increased quantity and quality of hæmaglobin, and red blood cells 3,000,000 to the cubic millimetre.

December 18 the patient had gained seven pounds in weight, color good, puffiness of the skin disappeared, and she was taking daily exercise in the open air without suffering fatigue.

December 24 microscopic examination of the blood showed hæmoglobin almost normal, the red blood cells about 4,500,000 to the cubic millimetre, general condition splendid.

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Urotropin Influence on Intestinal Decomposition.—Professor W. F. Loebisch, Director of the Laboratory for Applied Medical Chemistry at the Imperial and Royal University of Innsbruck, in a discourse held before the Medical Society of that city, published in the *Wiener Medieinische Presse*, Nos. 27 and 28, 1901, details at length the results of his experimental researches upon the influence of Urotropin upon intestinal decomposition. In spite of the demonstration of the inhibitory influence of the drug upon the development of the bacterium coli by Nicolaier, and of its destructive effect upon typhoid bacilli in the urine by Richardson, a direct influence of the Urotropin ingested upon intestinal fermentation itself was not thought of. Loebisch himself had his attention called to it quite accidentally. He was examining the urine of a man who was well nourished and upon a mixed diet, and who was taking urotropin to the extent of 0.5 to 1 gram (7½ to 15 grains) daily for a posterior urethritis, and found that neither by Jaffe's or Obermayer's test could he get any reaction for indican. Now the presence of this substance in the urine is one of the most accessible indications of the occurrence of bacterial intestinal decomposition, and he was thus led to investigate the action of the drug upon these ordinary enteric changes.

Mr. Ernest Mayerhofer, Assistant at his Institute, made a series of personal experiments for the determination of the matter, during a period of twenty days. The diet was of the usual mixed variety. Only upon the last three days of the experimentation was it made uniform in quantity and quality.

As the tables presented by Loebisch clearly show, the indican in the urine examined decreased parti passu with the amount of urotropin that was daily administered, until finally it disappeared altogether. The conclusion was inevitable that urotropin, administered in daily doses of 2 grams (30 grains) to a healthy individual upon a mixed diet, inhibits ordinary intestinal putrefaction.

In view of the fact that the increased excretion of indican in the urine is an important symptom in various diseases, Loebisch next inquires whether this property of urotropin to diminish or even abolish it in moderate daily doses of 2 grams (30 grains) cannot be utilized therapeutically.

Now both indol and skatol appear in the large intestine in consequece of a peculiar process of decomposion in which various ærobic and anærobic bacteria are also concerned. Indol is not necessarily formed in ordinary albuminoid decomposition; apparently the ærobic indol-formers hinder this process. Under normal circumstances both the indols and the phenols are formed in the large intestine. Jaffé has shown that indican is increased in the urine in all cases in which the small intestine is occluded, as in incarceration from hernia or peritoneal adhesions; and H. Senator has found it augmented in chronic wasting processes, such as cancer of the stomach, etc., and even in simple coprostasis. Clinicians, therefore, look upon the increase of indican in the urine as an indication of a disturbance of the normal decomposition processes of the alimentary canal.

Disinfection of the intestinal canal is desirable in many cases in which agents like calomel, which cause diarrhœa, are not appropriate. The contents must so far as possible be disinfected in situ; for which purpose the phenols, cresols, tribromphenol, thymol, and many other substances have been recommended. They have not obtained a very wide acceptance, however, perhaps for the reason that most of them are poisons, and the non-toxic medicinal dose may be readily over-passed.

Urotropin is a remedy that is very soluble in water, that by the above experiments has been proven to be inhibitory to intestinal decomposition, that has been found valuable in the treatment of various

bladder diseases, and that has been proven to be harmless even when taken for weeks at a time in medicinal doses. Mayerhofer did not suffer from the least physical disturbance during the twenty days that he took the drug; I even had the impression that his complexion cleared, and that his physical energy was increased.

Loebisch then made a series of experiments as to the power of urotropin to prevent the decomposition of non-sterile fibrin. They found that it had a hindering effect even when employed in very dilute (1:10,000) solution.

There is abundant evidence before us as to its power of inhibiting the development of the specific intestinal bacteria. Bacteriuria due to the bacterium coli (Nicolaier, Heubner) and the bacillus lactis aërogenes (Kruse) have been cured by its use. Loebisch has himself observed a case of recurrent bacteriuria which was always quickly relieved by a few doses of urotropin. American, German, and English observers have testified to its beneficial influence upon typhoid bacilli in the urine. In view of these facts and the foregoing experiments, there can be no doubt that urotropin influences the bacteria of the intestinal canal in a similar manner. It is now the turn of the clinicians to experiment therapeutically with the drug in the many cases of abnormal intestinel decomposition.

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By T. J. Biggs, M.D.

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On November 18 the bovinine was increased to a tablespoonful every two hours.

November 30 the bovinine was increased to a wineglassful every two hours, given in peptonized milk, alternating with old port wine. The patient at this time showed some improvement, felt stronger, slept better, digestion seemed excellent, bowels regular, and she slept throughout the night quietly.

December 10 microscopic examination of the blood showed increased quantity and quality of hæmaglobin, and red blood cells 3,000,000 to the cubic millimetre.

December 18 the patient had gained seven pounds in weight, color good, puffiness of the skin disappeared, and she was taking daily exercise in the open air without suffering fatigue.

December 24 microscopic examination of the blood showed hæmoglobin almost normal, the red blood cells about 4,500,000 to the cubic millimetre, general condition splendid.

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Urotropin Influence on Intestinal Decomposition. — Professor W. F. Loebisch, Director of the Laboratory for Applied Medical Chemistry at the Imperial and Royal University of Innsbruck, in a discourse held before the Medical Society of that city, published in the *Wiener medicinische Presse*, Nos. 27 and 28, 1901, details at length, the results of his experimental researches upon the influence of Urotropin upon intestinal decomposition. In spite of the demonstration of the inhibitory influence of the drug upon the development of the bacterium coli by Nicolaier, and of its destructive effect upon typhoid bacilli in the urine by Richardson, a direct influence of the Urotropin ingested upon intestinal fermentation itself was not thought of. Loebisch himself had his attention called to it quite accidentally. He was examining the urine of a man who was well nourished and upon a mixed diet, and who was taking urotropin to the extent of 0.5 to 1 gram (7½ to 15 grains) daily for a posterior urethritis, and found that neither by Jaffe's or Obermayer's test he could get any reaction for indican. Now the presence of this substance in the urine is one of the most accessible indications of the occurrence of bacterial intestinal decomposition, and he was thus led to investigate the action of the drug upon these ordinary enteric changes.

Mr. Ernest Mayerhofer, Assistant at his Institute, made a series of personal experiments for the determination of the matter during a period of twenty days. The diet was of the usual mixed variety. Only upon the last three days of the experimentation was it made uniform in quantity and quality.

As the tables presented by Loebisch clearly show, the indican in the urine examined decreased *parti passu* with the amount of urotropin that was daily administered, until finally it disappeared altogether. The conclusion was inevitable that urotropin, administered in daily doses of 2 grams (30 grains) to a healthy individual upon a mixed diet, inhibits ordinary intestinal putrefaction.

In view of the fact that the increased excretion of indican in the urine is an important symptom in various diseases, Loebisch next inquires whether this property of urotropin to diminish or even abolish it in moderate daily doses of 2 grams (30 grains) cannot be utilized therapeutically.

Now both indol and skatol appear in the large intestine in consequence of a peculiar process of decomposition in which various ærobic and anærobic bacteria are also concerned. Indol is not necessarily formed in ordinary albuminoid decomposition; apparently the ærobic indol-formers hinder this process. Under normal circumstances both the indols and the phenols are formed in the large intestine. Jaffe has shown that indican is increased in the urine in all cases in which the small intestine is occluded, as in incarceration from hernia or peritoneal adhesions; and H. Senator has found it augmented in chronic wasting processes, such as cancer of the stomach, etc., and even in simple coprostasis. Clinicians, therefore, look upon the increase of indican in the urine as an indication of a disturbance of the normal decomposition processes of the alimentary canal.

Disinfection of the intestinal canal is desirable in many cases in which agents like calomel, which cause diarrhea, are not appropriate. The contents must so far as possible be disinfected *in situ;* for which purpose the phenols, cresols, tribromphenol, thymol, and many other substances have been recommended. They have not obtained a very wide acceptance, however, perhaps for the reason that most of them are poisons, and the non-toxic medicinal dose may be readily over-passed.

Urotropin is a remedy that is very soluble in water, that by the above experiments has been proven to be inhibitory to intestinal decomposition, that has been found valuable in the treatment of various

bladder diseases, and that has been proven to be harmless even when taken for weeks at a time in medicinal doses. Mayerhofer did not suffer from the least physical disturbance during the twenty days that he took the drug; I even had the impression that his complexion cleared, and that his physical energy was increased.

Loebisch then made a series of experiments as to the power of urotropin to prevent the decomposition of non-sterile fibrin. They found that it had a hindering effect even when employed in very dilute (1:10,000) solution.

There is abundant evidence before us as to its power of inhibiting the development of the specific intestinal bacteria. Bacteriuria due to the bacterium coli (Nicolaier, Heubner) and the bacillus lactis aërogenes (Kruse) have been cured by its use. Loebisch has himself observed a case of recurrent bacteriuria which was always quickly relieved by a few doses of urotropin. American, German, and English observers have testified to its beneficial influence upon typhoid bacilli in the urine. In view of these facts and the foregoing experiments, there can be no doubt that urotropin influences the bacteria of the intestinal canal in a similar manner. It is now the turn of the clinicians to experiment therapeutically with the drug in the many cases of abnormal intestinel decomposition.

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Case II.—Ed. H., age 30. Family history—hereditary consumption. Hemorrhage from lungs eighteen months ago. His physician had me examine sputum; found tubercle bacilli. After prescribing various remedies with very little improvement, I placed him on Antikamnia & Heroin Tablets, prescribing one tablet three times a day and one on retiring. He has since thanked me for saving him many sleepless nights, and while I am aware he never can be cured, relief has been to him a great pleasure and one which he has not been able to get heretofore.

Case III.—Wm. S., age 28. Lost 25 pounds in 30 days. Consulted me July 9. I thought he most certainly would fall victim to tuberculosis. Evening temperature 101° with night-sweats and a very troublesome cough with lancinating pains. Prescribed $\frac{1}{100}$ gr. atropine to relieve the excessive night-sweats and one Antikamnia & Heroin Tablet every four hours, with the result that he has entirely recovered and is now at work as usual.

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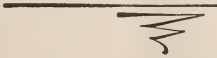
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three gout cases experienced relief under the administration of chinotropin, and the attacks were shortened to four, six and seven days respectively. The patients had been treated in former attacks with all the various gout remedies, lysidin, piperazin, lithium, etc., and were doubtless well qualified to pass judgment upon the drug.

The reason why chinotropin, rather than one of the other quinates, was selected by de la Camp, was on account of its combination with urotropin. As Orlowski and Nicolaier have shown, urotropin, after its passage through the human body, possesses marked uric acid solvent properties; which are entirely absent in lysidin, piperazin, uricedin, sodium bicarbonate, etc. The property depends upon the decomposition of the urotropin in the body and the separation from it of formaldehyde, which forms extremely soluble combinations with uric acid. Hence it should be employed for uric acid concretions not only in the urinary passages, but anywhere else in the body where they may be present. A dose of 7½ grams (112½ grains) of Schering's Chinotropin II. containing 1½ grams (22½ grains) of urotropin and 6 grams (90 grains) of quinic acid is the one that de la Camp recommends as always well borne. He was always able to demonstrate formalin in the freshly voided urine when chinotropin had been administered. The excretion, which previously often contained uric acid sediment in large amount, usually became clear by the second day.

Chinotropin is therefore to be recommended for further clinical experimentation as the best gout remedy that we as yet possess. Of course a proper dietary treatment, and the use of carbonated waters, as lately recommended again by Klemperer, must not be neglected.

The author concludes that quinic acid, even in large doses, is harmless. He advocates the employment of the quinate of urotropin (chinotropin) because the urotropin itself is decomposed in the human body, and gives formaldehyde, which forms readily soluble combinations with the uric acid. And in urinary concretions more especially, chinotropin is deserving of further experimentation.

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According to my other experiences I am warranted in concluding that Pepto-Mangan, owing to its agreeable taste and ready digestibility even in the presence of impaired gastric function, belongs to our most valuable ferruginous preparations.—Dr. August Hammer, Medical Councillor, City Physician., Bathing Establishment at Langerberg, near Marienbad, Bohemia.

The Early Diagnosis of Locomotor Ataxia.—The poor results derived from the treatment of tabes is often due to the fact that an early diagnosis has not been made or that patients do not apply for treatment in the early stages of the disease. Erb (*Med. Wochenschr.*) details a series of cases which had all been preceded by symptoms of secondary syphilis, some as far back as twenty-four years. In one group of cases the tendon reflexes were normal even after four to seven years' duration of slight lancinating pain, bladder insuffiency, sensory disturbances, easy fatigue, slight pupillary sign and "Rhomberg' Symptoms." A second group presented no subjective symptoms whatever, and but very few and almost unnoticeable objective symptoms. Still another group was attended by marked gastro-intestinal disturbances, not typical of tabes, and with bilateral paresis of the sixth nerve and pupil sign. Author insists on the necessity of always investigating the knee-jerk and pupil reflex in suspected cases. Tabetic symptoms with antecedent syphilis are always serious. Absence of a syphilitic history does not establish the existenc of tabes, even tho' some symptoms may exist. For the pains in tabes dorsalis, Antikamnia and Salol Tablets have been found most excellent when given in doses of two tablets every two or three hours. The antikamnia acts particularly upon the spinal cord and its sensory tracts, and consequently takes the place of opium and its alkaloids so often used to relieve patients subject to these attacks. The favorable effects of salol in this and similar conditions is well-known.

Sanmetto in Spasms of Bladder Neck.—Sanmetto is not new to me as I have used it two years. I will report a case that came under my treatment on the fourth day of February. A lady about forty years of age had spasms of the neck of the bladder. She was in constant pain. She could neither sleep nor sit still. She was compelled to urinate as often as every half hour. I commenced giving her Sanmetto, a teaspoonful every two hours for the first twelve hours. The next twenty-four hours I gave her a teaspoonful every three hours, and the next twenty-four hours, every four hours, unless sleeping. Discharged the woman the fifth day as well, and she has been well ever since. A prominent physician of our city had been treating this patient, but she received no benefit from his treatment whatever.—Wm. S. McLean, M. D., Saginaw, E.S., Mich.

Neurotic Conditions of Climacteric Period.—This form of neuroses is considered by the latest and best authorities as essentially hysterical and neurasthenic; a statement that seems borne out at least in part by the predominence of the various reflexes. How far the latter condition may be due to irritation of the nerve-ends in the ovary depends, it would seem, on the degree of atrophy and consequent contraction of the tissues. The ordinary

physical disturbances due to menstruation in some cases persist and cause various phenomena and often much annoyance. And while many of these symptoms may be, and some of them doubtless are, neurasthenic, it will be found wise not to abandon special medication. In the greater number of cases, two five-grain antikamnia tablets, repeated every hour if necessary, will be found to give entire relief. Under this treatment the reflexes are naturally abolished, the nerves are soothed, and the system returns to its normal equipoise. Antikamnia tablets are essentially pain-killers, yet in this instance they nullify the reflexes almost precisely after the same physiological fashion, so to speak, as they relieve pain, and without unpleasant after-effects. In cases of threatened metrorrhagia it is always advisable to administer "antikamnia & codeine tablets" as frequently as may be found necessary, say one every hour until six are taken. (George Brown, A.M., M.D., Atlanta, Ga.)

NIRVANIN. — Nirvanin is a local anesthetic agent only one-tenth as toxic as cocaine. It has been used in children without ill-effects. Its use is not attended by any excitement, by any influence upon the respiration, or by any weakening of the heart action. Owing to its relative non-toxicity, this drug is of special value to secure local anesthesia of parts the circulation of which cannot be easily controlled, as in operations upon the anal region. Nirvanin anesthesia lasts longer than cocaine anesthesia. Its effects are prolonged. Nirvanin does not irritate wounds, does not interfere with healing by first intention.

Sterilization by boiling does not decompose solutions of nirvanin, does not impair the anesthetic properties of the latter. The most commonly used solutions for hypodermic injection anesthesia are the 1, 2, 3 and 5 per cent. aqueous solutions; for infiltration anesthesia, ¼ to ½ per cent. solution. Luxenburger recommends that the nirvanin be dissolved in sterilized salt solution. — A. P. Heineck, *Can. Jour. M. and S.*, March, 1901.

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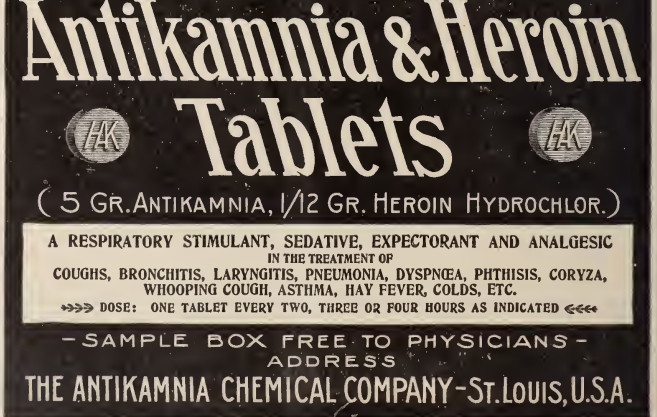
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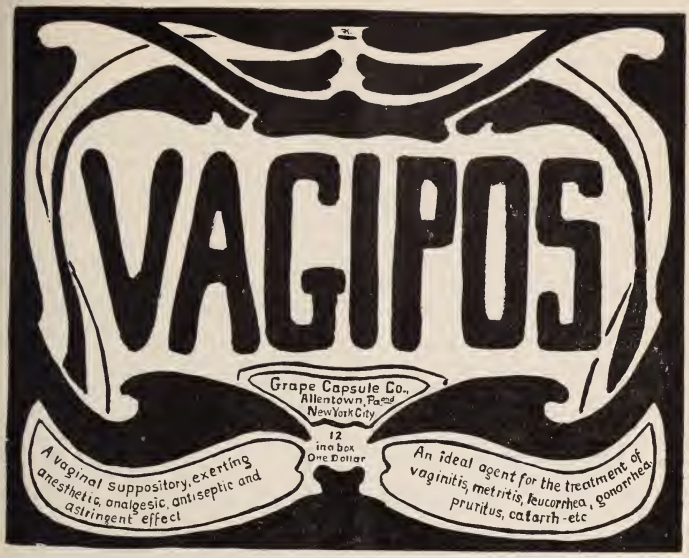
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Two Cases of Urogenital Colibacillosis.—In an article under this title (from the University Clinic for Skin and Venereal Diseases at Bern, Professor Jadassohn, Director; *Deutsche Medicinische Wochenschrift*, April 11, 1901), Dr. Wilhelm Karo reports a case in a man of sixty-five, who had had dysuria and cloudy urine for a year. Eight days before the time of examination, and without ascertainable cause, he developed a sudden swelling of the left testicle, with much pain and fever. The urine was cloudy, but otherwise normal; and the cloudiness was not removable by filtration, sedimentation, or acids. The cloudiness was found to be dependent upon the presence of the bacterium coli communis; and expression of the seminal vesicles showed them to contain almost pure cultures of that organism.

The fluctuating scrotal tumor was punctured, and a thin, greenish pus containing only the bacterium coli evacuated. Under urotropin administered in 0.5 gram (7½ grains) doses three times a day, the dysuria gradually disappeared and the secretion cleared up. With iodin vasogen and the thermophor the sensibility of the scrotal tumor was entirely relieved.

Nine days later the patient had a sudden chill, became cyanotic, with respirations 45 per minute, pulse small, 120, temperature 40.7° C. (105.3° F.), and singultus. Another abscess appeared at the lower pole of the testicle; this was opened. Nevertheless his condition became steadily worse, so that the testicle had to be removed that night.

He recovered slowly, though steadily. In three weeks cicatrization was complete, and the patient's strength had increased *pari passu*. The urotropin had been continued steadily, the urine was clear, and contained no bacteria; there was no dysuria. The cure was permanent.

The second case was of a more chronic nature. He was a man of twenty-seven, who had had gonorrhea several times, the last attack of which resisted all manner of treatment. Four days before Karo saw him he had taken two teaspoonfuls of ordinary gunpowder. There was an immediate violent diarrhea, followed by swelling of the right testicle with fever and pain. The urethral discharge contained no gonococci; but the urine was cloudy and contained an abundance of bacterium coli. They were also found in pure culture in the secretion of the prostrate and the seminal vesicles.

In a few days a fluctuating tumor formed at the lower end of the affected testicle; evacuation thereof gave a serosanguineous fluid with abundant bacteria of same kind. The fever and the pain then ceased, and the enteritis was controlled by calomel and rhubarb. In the course of a short time the urine cleared up under the daily administration of 1.5 grams (22½ grains) of urotropin, and the bacteria disappeared entirely.

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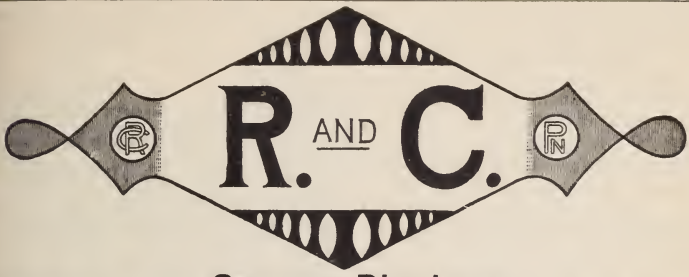
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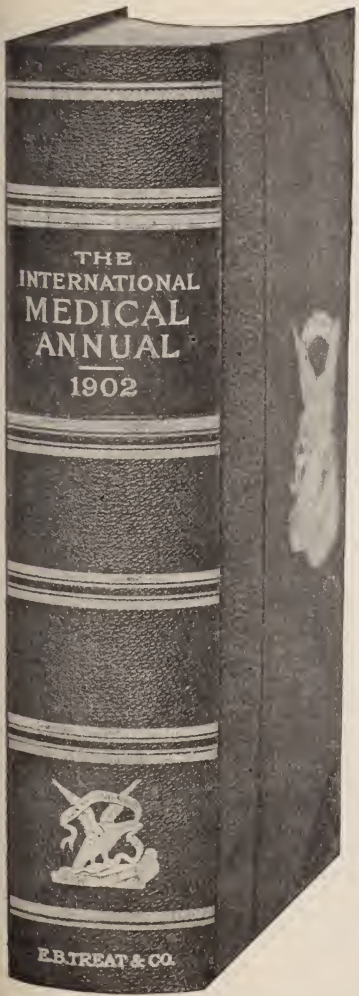
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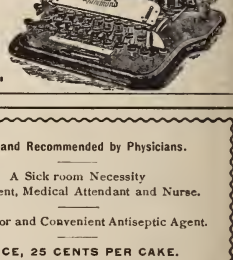


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The authors entirely agree with the conclusions that Professor Kroenig and Dr. Blumberg have come to. After infection of the hands with tetragenus germs the Ethylenediamine-Mercury solutions, especially when employed in the stronger conconcentrations, are entirely equivalent to 1 : 1000 sublimate solution in disinfectant powder; and, in consequence of the absence of any cauterant effect, they have the great advantage that they can be employed concentrated, and hence exhibit a more certain disinfectant action when the hands have been in contact, for instance, with highly virulent pus.

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* Experimental Investigation from the Bacteriological Laboratory of Professor Döderlein's University Gynæcological Clinic at Tübingen. Abstract from the *Münchener Medicinische Wochenschrift*, Nos, 37 and 38, 1901.

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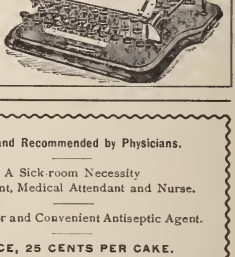


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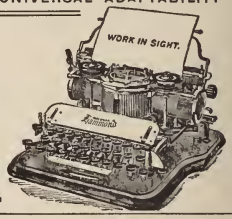


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Severe Inflammation of the Tongue from a Sting—Rectal Blood Nourishment, and Tracheotomy.—Eddie R., age seven, American. Diagnosis: Glossitis. The patient was brought to the hospital, July 2, 1900, by Dr. S. The condition was the result of a sting of a wasp. He had been under treatment by Dr. S. for a week, but the condition had not subsided. At the time of entering the hospital he had a temperature of 103½, rapid pulse, very restless, the tongue was greatly enlarged, and he complained of a sensation of heat in the mouth with pain and a greatly increased flow of saliva. Mastication and deglutition were impossible, voice muffled and a decided dyspnea. The glands at the angle of the jaw were greatly enlarged, and compressed the large vessels of the neck. The little patient was put to bed, rectum washed out, and a high rectal injection of bovinine given, 1 oz. in milk 3 ozs. My reason for doing this first was that the patient had taken absolutely nothing in the way of nourishment for three days and nights. The feeding was retained and caused no special inconvenience. Next, the mouth was carefully swabbed out with Thiersch solution, and bovinine pure applied.

The nurse was instructed to employ this every hour and the rectal feedings once every four hours, during the waking hours. On the morning of the third, the breathing had become so difficult that the patient was on the verge of suffocation. I therefore decided on an immediate tracheotomy. This was done with cocaine, and afforded the little sufferer great relief, and allowed us to treat the mouth and tongue without seriously inconveniencing the patient.

On the 4th, the little fellow gave us to understand that he was not suffering any pain and felt much better. The feedings and local applications continued as before.

On the 10th, the fever had entirely subsided, and the patient was quiet, the pulse being almost normal. The tongue was greatly reduced in size and not nearly so sensitive. The flow of saliva had decreased and he could speak more distinctly. The glands in the angles of the jaw were also greatly reduced, thereby relieving the pressure on the vessels of the neck.

On the 20th, the tongue had been reduced to normal size, the flow of saliva about normal, voice clear, glands in the neck very slightly enlarged. The local applications were now employed every three hours and the rectal feedings as before.

On the 25th, the tracheotomy tube was removed and the wound closed.

On the 27th, the patient was up and about.

On the 29th, he was allowed a light general diet and the patient's mouth was almost in a normal condition. Rectal feedings were discontinued, and bovinine given per mouth, two teaspoonsful every two hours in milk. The patient will remain in the hospital another week, after which he will be discharged.

It may be observed here with interest that from the beginning of the treatment up to the 28th the patient received no nourishment but the rectal feedings with bovinine, and in spite of this he was perfectly nourished and on the 30th showed that he had gained 4½ lbs. in weight. The bovinine used locally in a case of this kind accomplishes what nothing else can; that is, it regenerates the broken-down and diseased mucous membrane, restoring it to its normal condition in a comparatively short time. Any other application at best simply reduces the inflammation and allows nature to accom-

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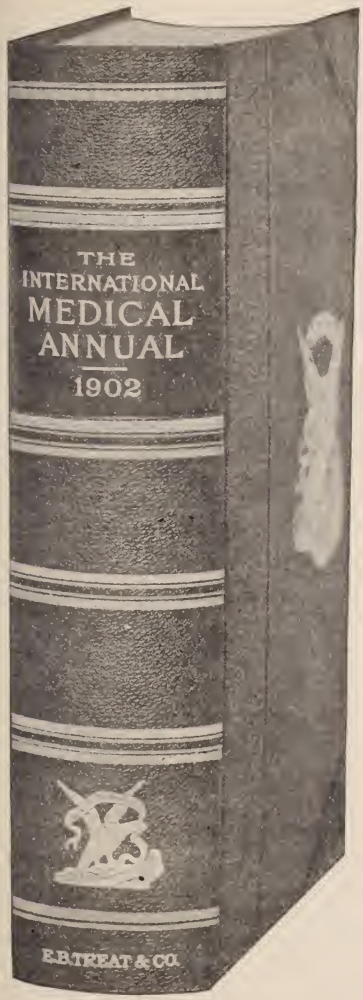
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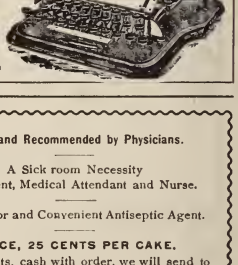


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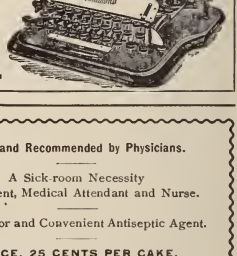


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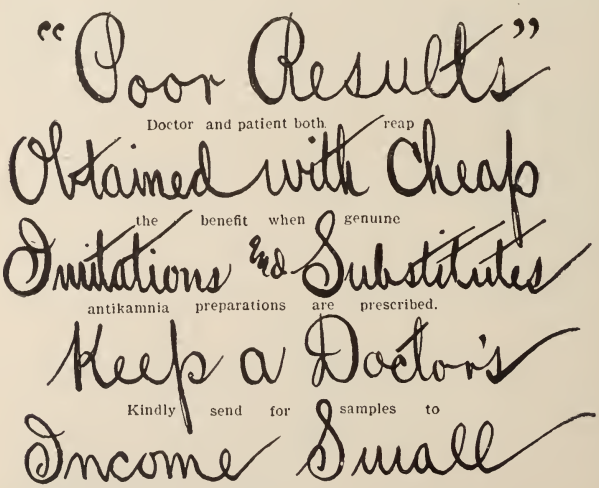
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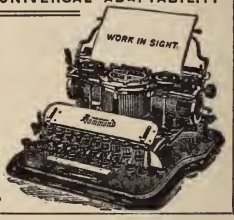


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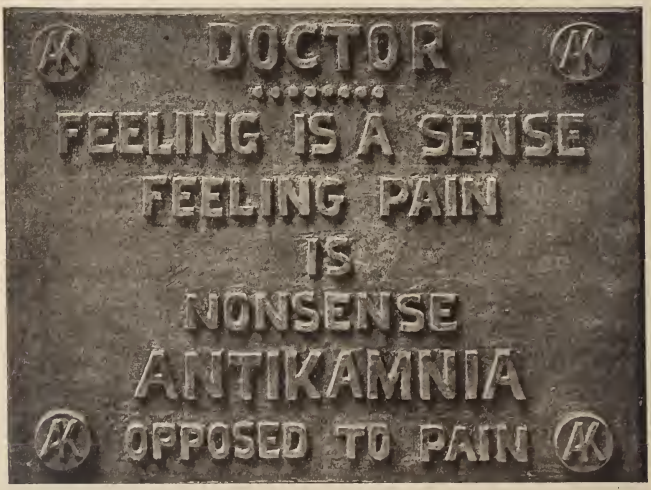
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Syr. symplicis }	ää....	30.0 (℥j);
Aquæ, q. s. ad.....		90.0 (℥iij).

The temperature may be controlled by lukewarm or cold sponging, or, if the patient is nervous and restless, by acetanilid, phenacetin, or sodium salicylate. A weak heart may require strychnine, digitalis, or alcohol. If the kidneys become involved, give warm baths, saline cathartics, milk diet, and water with liquor potass. citrat. Keep up counter-irritation over kidneys with poultices and mustard, and promote diaphoresis by hot pack or vapor bath. Convulsions may be controlled by morphine, atropine, chloral hydrate, potassium bromide or chloroform. Urgent symptoms may demand hot mustard baths, with cold affusions or ice to the head, or even venesection. Morphine is the best remedy to control the pain of scarlatinal rheumatism, but sodium salicylate should be given, and the joint wrapped in a glycerin ointment.

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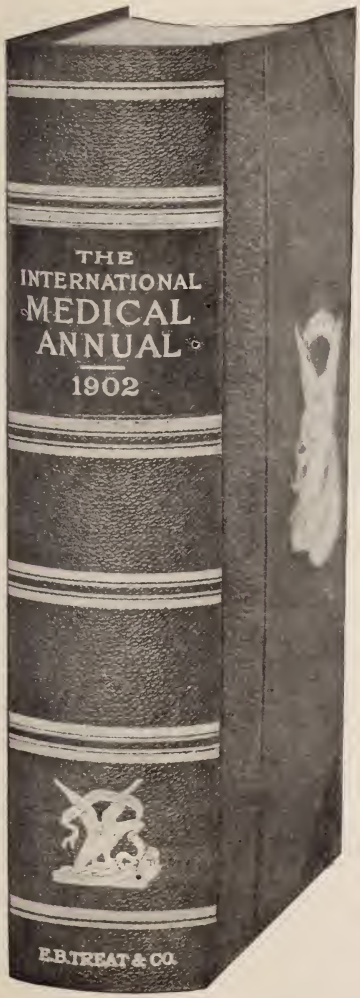
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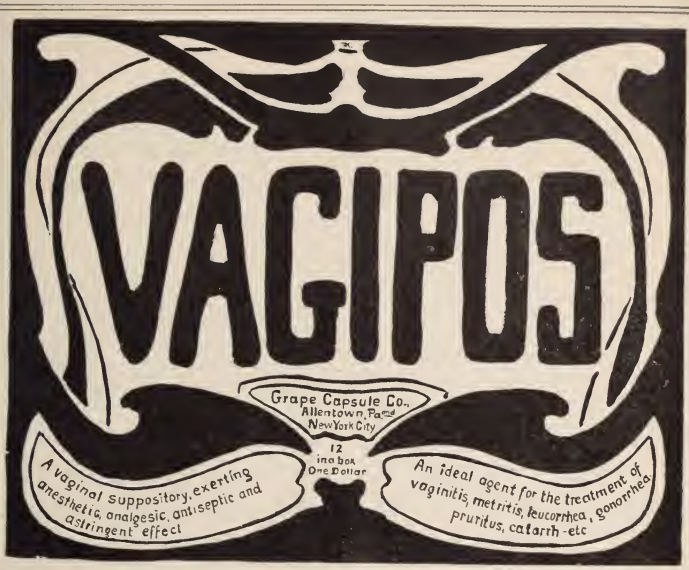
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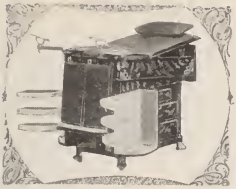
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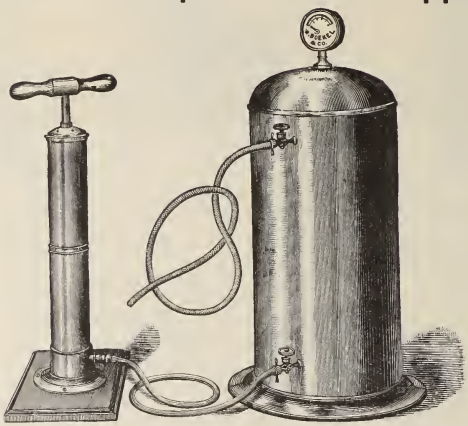
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